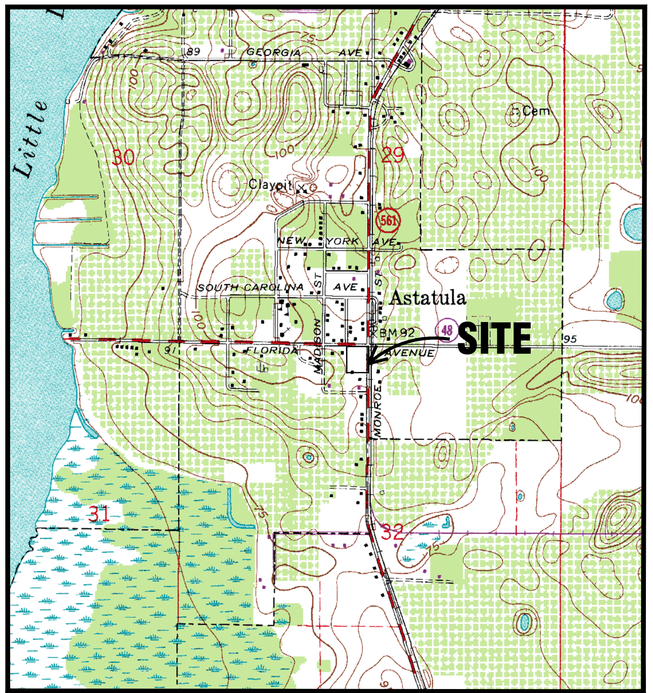
SITE PLAN FOR
LAKE COUNTY FIRE STATION

LAKE COUNTY
FLORIDA

Town of Astatula, Lake County, Florida

Lying Within Section 32, Township 20 South, Range 26 East



LOCATION MAP

OWNER:
Lake County BCC
P.O. Box 7800
Tavares, Fl. 32778
Contact: Kristian Swenson
(352) 253-4976

ENGINEER/SURVEYOR:
Booth, Ern, Straughan and Hiott
350 North Sinclair Avenue
Tavares, Florida 32778
(352) 343-8481

UTILITY COMPANIES

ELECTRIC:
SECO
P.O. BOX 301
SUMTERVILLE, FL 33585
(352) 793-3801
CONTACT: DONNA HOMAN

TELEPHONE:
CENTURY LINK
33 N. MAIN ST
WINTER GARDEN, FL. 34787
(407) 814-5383
CONTACT: WADE RICH

CABLE:
FLORIDA CABLE
23748 S.R.40
ASTOR, FL 32102
(352) 728-8757
CONTACT: BILL BOTTICHER

WATER:
WELL

SANITARY:
SEPTIC TANK AND DRAINFIELD

NOTE:
ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH LAKE COUNTY & TOWN OF ASTATULA UTILITY CONSTRUCTION SPECIFICATIONS.

LEGAL DESCRIPTION

LOTS 1 TO 9, INCLUSIVE, IN BLOCK 8 OF T. H. ENGLISH'S SUBDIVISION IN THE CITY OF ASTATULA, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 2, PAGE 32, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

AND

LOTS 10, 11, 12 AND 13 IN BLOCK 8 OF T. H. ENGLISH'S SUBDIVISION IN THE TOWN OF ASTATULA, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 2, PAGE 32, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

CONTAINING 1.646 ACRES MORE OR LESS

INDEX OF SHEETS

1. COVER SHEET
2. DEMOLITION AND EROSION CONTROL PLAN
3. SITE PLAN
4. DETAILS
5. GENERAL NOTES
6. GENERAL NOTES
7. BOUNDARY SURVEY

BESH
BOOTH ERN STRAUGHAN HIOTT, INC
ENGINEERS • SURVEYORS • LAND PLANNERS
350 North Sinclair Ave.
Tavares, Florida 32778
www.besandh.com
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 27029

NOTES:

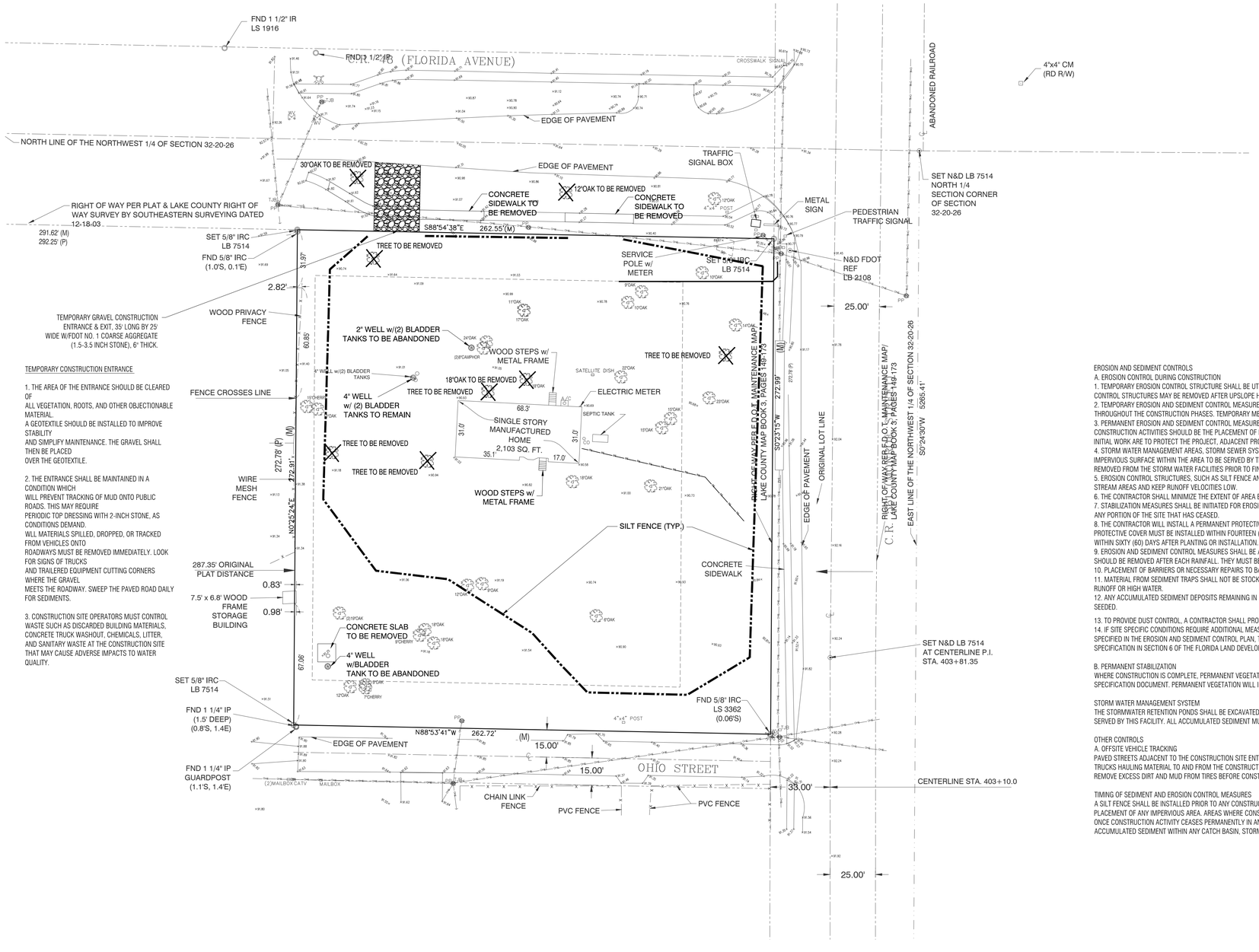
1). ALL STORMWATER INLETS TO HAVE AN EROSION CONTROL MEASURES APPLIED UPON THE COMPLETION OF THEIR INSTALLATION. THIS EROSION CONTROL MEASURE CAN BE A "SOCK" WITH ROCK BAGS THAT WILL NOT ALLOW FOR SEDIMENTS TO ENTER INTO THE INLETS AND ULTIMATELY ENTER INTO THE DRA. OTHER METHODS OF PROTECTION CAN BE OBTAINED FROM FDOT STANDARD INDEX 102. HOWEVER PLEASE NOTE THE USE OF HAY/STRAW BALES IS NOT PERMITTED, A SYNTHETIC BALE MAY BE USED INSTEAD.

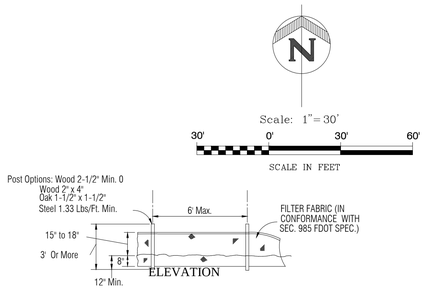
2). TEMPORARY EROSION CONTROL STRUCTURE TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY ENGINEER OR AREAS ON-SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL STRUCTURE MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY CONTRACTOR.

3). ALTERNATE EROSION CONTROL STRUCTURE:
WOVEN FILTER FABRIC SILT FENCE IN ACCORDANCE WITH FDOT INDEX #102. FILTER FABRIC IN ACCORDANCE WITH SECTION 985 OF THE FDOT STANDARD SPECIFICATIONS.

EROSION CONTROL STRUCTURE

THE FOLLOWING REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF-SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.





SILT FENCE DETAIL

EROSION AND SEDIMENT CONTROLS

A. EROSION CONTROL DURING CONSTRUCTION

1. TEMPORARY EROSION CONTROL STRUCTURE SHALL BE UTILIZED DURING CONSTRUCTION OF AREAS ON-SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL STRUCTURES MAY BE REMOVED AFTER UPSLOPE HAS BEEN STABILIZED BY SOD OR COMPACTED AS DETERMINED BY THE CONTRACTOR.
2. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASES. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.
3. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICABLE TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OF THE INITIAL WORK ARE TO PROTECT THE PROJECT, ADJACENT PROPERTIES, AND WATER RESOURCES.
4. STORM WATER MANAGEMENT AREAS, STORM SEWER SYSTEM AND CONTROL STRUCTURES SHALL BE EXCAVATED T ROUGH GRADE PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATE, ALL ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE STORM WATER FACILITIES PRIOR TO FINAL GRADING, STABILIZATION AND GRASSING.
5. EROSION CONTROL STRUCTURES, SUCH AS SILT FENCE AND BERMS, SHALL BE INSTALLED AROUND INLETS AND IN SWALES TO TRAP ERODED MATERIAL, PREVENT SEDIMENTATION IN DOWN STREAM AREAS AND KEEP RUNOFF VELOCITIES LOW.
6. THE CONTRACTOR SHALL MINIMIZE THE EXTENT OF AREA EXPOSE AT ANY ONE TIME AND THE DURATION OF EXPOSURE.
7. STABILIZATION MEASURES SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED GRASS NO MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN ANY PORTION OF THE SITE THAT HAS CEASED.
8. THE CONTRACTOR WILL INSTALL A PERMANENT PROTECTIVE VEGETATIVE COVER FOR EROSION AND SEDIMENT CONTROL ON ALL LAND SURFACES DISTURBED BY CONSTRUCTION. THIS PROTECTIVE COVER MUST BE INSTALLED WITHIN FOURTEEN (14) DAYS AFTER FINAL GRADING OF THE EFFECTED LAND SURFACES. A PERMANENT VEGETATIVE COVER MUST BE ESTABLISHED WITHIN SIXTY (60) DAYS AFTER PLANTING OR INSTALLATION.
9. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
10. PLACEMENT OF BARRIERS OR NECESSARY REPAIRS TO BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
11. MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCK PILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATER COURSE BY RUNOFF OR HIGH WATER.
12. ANY ACCUMULATED SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

13. TO PROVIDE DUST CONTROL, A CONTRACTOR SHALL PROVIDE A WATER TRUCK OR IRRIGATION SYSTEM AS NEEDED, TO MAINTAIN SOIL MOISTURE.
14. IF SITE SPECIFIC CONDITIONS REQUIRE ADDITIONAL MEASURES DURING ANY PHASE OF CONSTRUCTION OR OPERATION TO PREVENT EROSION OR CONTROL SEDIMENT, BEYOND THOSE SPECIFIED IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR MUST IMPLEMENT ADDITIONAL BEST MANAGEMENT PRACTICES AS NECESSARY, IN ACCORDANCE WITH THE SPECIFICATION IN SECTION 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL; A GUIDE TO LAND AND WATER MANAGEMENT.

B. PERMANENT STABILIZATION

WHERE CONSTRUCTION IS COMPLETE, PERMANENT VEGETATION SHALL BE INSTALLED AS SPECIFIED ON THE CONSTRUCTION PLANS AND IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATION DOCUMENT. PERMANENT VEGETATION WILL INCLUDE SOD OR SEED AND MULCH.

STORM WATER MANAGEMENT SYSTEM

THE STORMWATER RETENTION PONDS SHALL BE EXCAVATED TO ROUGH GRADE PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACES WITHIN THE DRAINAGE AREA SERVED BY THIS FACILITY. ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE RETENTION POND PRIOR TO FINAL GRADING, STABILIZING AND GRASSING.

OTHER CONTROLS

A. OFFSITE VEHICLE TRACKING

PAVED STREETS ADJACENT TO THE CONSTRUCTION SITE ENTRANCE WILL BE SWEPT AS NEEDED TO PREVENT EXCESS MUD, DIRT, OR ROCK FROM LEAVING THE CONSTRUCTION SITE. ALL DUMP TRUCKS HAULING MATERIAL TO AND FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP. TEMPORARY STABILIZED OR ROCK CONSTRUCTION ENTRANCE MAY BE REQUIRED TO REMOVE EXCESS DIRT AND MUD FROM TIRES BEFORE CONSTRUCTION VEHICLES ENTER ADJACENT PAVED STREETS.

TIMING OF SEDIMENT AND EROSION CONTROL MEASURES

A SILT FENCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. THE RETENTION PONDS AND THE STORM WATER CONVEYANCE SYSTEM SHALL BE CONSTRUCTED PRIOR TO THE PLACEMENT OF ANY IMPERVIOUS AREA. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 14-DAYS SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN ANY AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SEED AND MULCH OR SOD. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WITHIN ANY CATCH BASIN, STORM PIPES OR RETENTION PONDS WILL BE REMOVED.

LAKE COUNTY
FLORIDA

DATE		REVISION
8-15-2012	1	REVISED PER LAKE COUNTY
9-24-2012	2	REMOVE TREES AND POLES
	3	
	4	
	5	
	6	
	7	
	8	

ASTATULA LAKE COUNTY FIRE STATION

SECTION 32, TOWNSHIP 20 SOUTH, RANGE 26 EAST

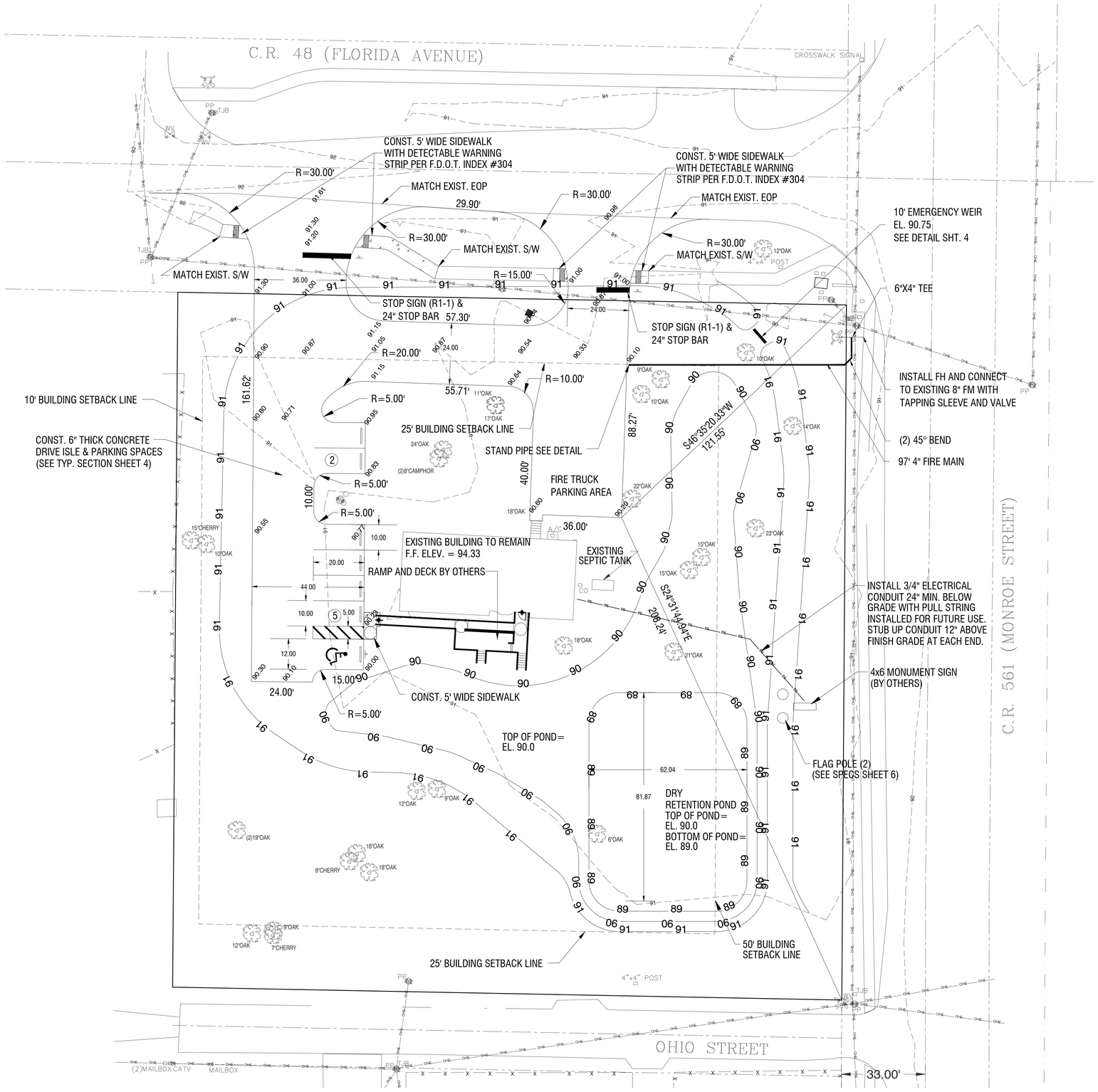
DEMOLITION & EROSION CONTROL PLAN

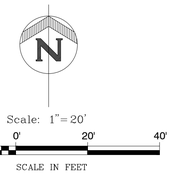
BOOTH ERN STRAUGHAN HIOTT, INC
ENGINEERS • SURVEYORS • LAND PLANNERS
350 North Sinclair Ave.
Tavares, Florida 32778
www.besainch.com
Office: 352-343-8481
Fax: 352-343-8495
Certificate of Authorization Number: 27029

DATE:	JUNE 2012
DESIGNED BY:	CCH
DRAWN BY:	CCH
CHECKED BY.:	CCH
JOB NO.:	071082.0025
FILE NAME:	SITE 2

Sheet 2

CHARLES C. HIOTT, P.E.
Registered Eng 54813





LAND USE DATA

EXISTING FLUM.....COMMERCIAL
EXISTING ZONING.....C-1 WITH CUP
TOTAL AREA OWNED.....1.65 ACRES OR 71,681 SF
LIMITS OF CONSTRUCTION AREA.....1.65 ACRES OR 71,681 SF

ADJACENT ZONING:
NORTH..... C-2
SOUTH..... R-2
EAST C-1
WEST R-2

FLUM:
NORTH..... INSTITUTIONAL
SOUTH..... SINGLE FAMILY MEDIUM
EAST ..... COMMERCIAL
WEST ..... SINGLE FAMILY MEDIUM

SETBACKS:
FRONT..... 50' (FACING CR 561)
SIDE..... 25'
REAR..... 10'

PROPOSED USE: CONVERT EXISTING MOBILE HOME TO LAKE COUNTY FIRE STATION

LANDSCAPE BUFFERS:
FRONT..... TYPE 'A' (10 FEET)
N. SIDE..... TYPE 'A' (10 FEET)
S. SIDE..... TYPE 'C' (30 FEET)
REAR..... TYPE 'C' (30 FEET)

GROSS SQUARE FOOTAGE:
FLOOR AREA RATIO.....2,102 SQUARE FEET
BUILDING HEIGHT.....35' MAX

EXISTING PARKING = 2
PARKING PROVIDED = 7

WASTE MANAGEMENT ..... ROAD SIDE PICK UP
UTILITIES ..... WELL AND SEPTIC
SEWER DEMAND IS 4 EMPLOYEES AT 350 GPD / EMPLOYEE = 1,400 GPD
WATER DEMAND IS 4 EMPLOYEES AT 350 GPD / EMPLOYEE = 1,400 GPD
EXISTING WELL AND SEPTIC SHALL BE PERMITTED BY OWNER WITH LAKE COUNTY HEALTH DEPARTMENT.

FIRE PROTECTION..... FIRE HYDRANT ADDED TO TOWN OF ASTATULA FIRE MAIN

40C-42 PERMIT FROM SJRWMD

STORMWATER REQUIRED
REQUIRED = 1.65*1/12 =6,098 CF
PROVIDED = 1.75' DEEP = 31,799 CF

SOIL TYPE.....(LaB) LAKE SAND, HSG "A"
WELANDS / CONSERVATION .....0.00 SF
GRASS/OPEN SPACE.....55,793 SF (78%)
EXISTING BUILDING.....2,102 SF
PROPOSED SIDEWALK &PAVEMENT...13,786 SF
TOTAL.....15,888 SF
IMPERVIOUS SURFACE RATIO.....0.22

NOTES:

1. ALL STRIPING TO BE LEAD FREE THERMOPLASTIC INSTALLED PER SECTION 711, F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. DETECTABLE WARNING STRIPS TO BE INSTALLED PER F.D.O.T. STANDARD INDEX NO. 304 AND SECTION 527, F.D.O.T. STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
3. ENTIRE LOT TO BE GRADED TO MATCH SITE PLAN, AS NEEDED. BAHIA SOD TO BE INSTALLED IN ALL AREAS DISTURBED AND ANY OTHER AREAS WITH OUT GRASS.
4. ALL DEBRIS, BRANCHES, AND TRASH NEEDS TO BE DISPOSED OF.
5. GRIND ALL EXISTING STUMPS MINIMUM OF 8" BELOW FINISHED GRADE.

LAKE COUNTY
FLORIDA

DATE		REVISION
8-15-2012	1	REVISED PER LAKE COUNTY
9-24-2012	2	ADDED FIRE STAND PIPE
	3	
	4	
	5	
	6	
	7	
	8	

ASTATULA LAKE COUNTY FIRE STATION

SECTION 32, TOWNSHIP 20 SOUTH, RANGE 26 EAST

SITE PLAN

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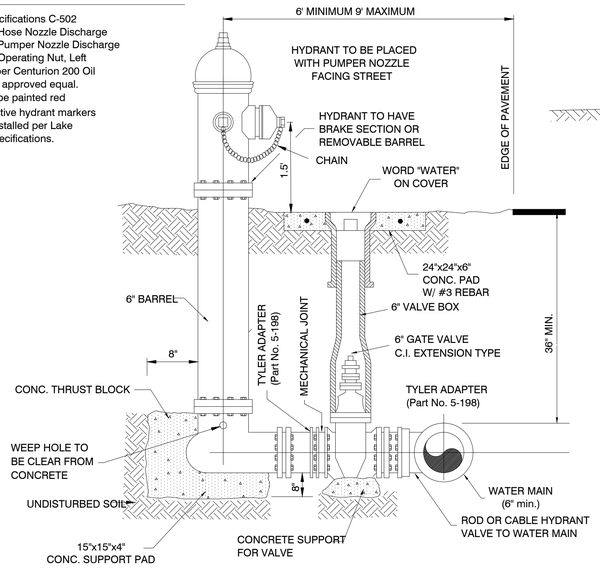
FILE NAME:	SITE 2

Sheet 3

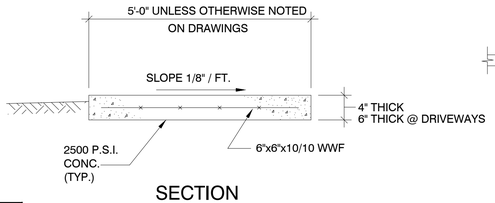
CHARLES C. HIOTT, P.E.
Registered Eng 54813

SPECIFICATIONS

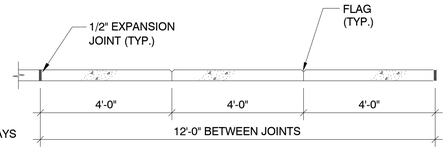
1. AWWA Specifications C-502
2. Two 2-1/2" Hose Nozzle Discharge
3. One 4-1/2" Pumper Nozzle Discharge
4. One 1-1/2" Operating Nut, Left
5. Meuller Super Centurion 200 Oil Resorvoir or approved equal.
6. Hydrant to be painted red
7. Blue reflective hydrant markers shall be installed per Lake County specifications.



FIRE HYDRANT

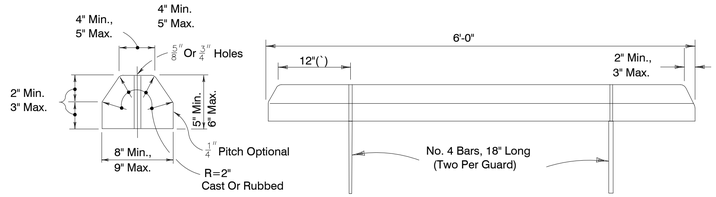


SECTION

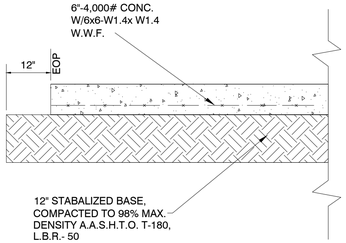


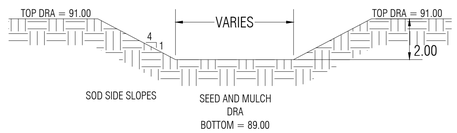
PROFILE

CONCRETE WALKWAY DETAIL



CONCRETE WHEEL STOP



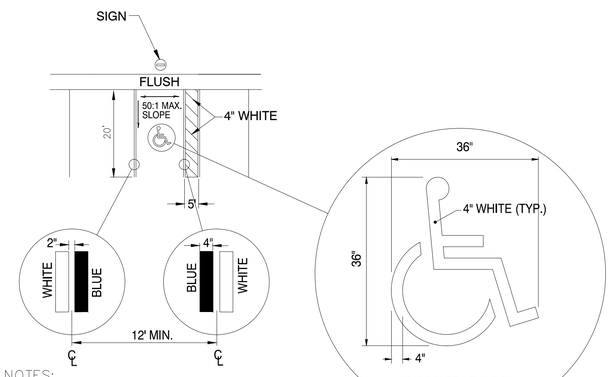


DRA SECTION

N.T.S.

TYPICAL CONCRETE DRIVEWAY AND PARKING SECTION

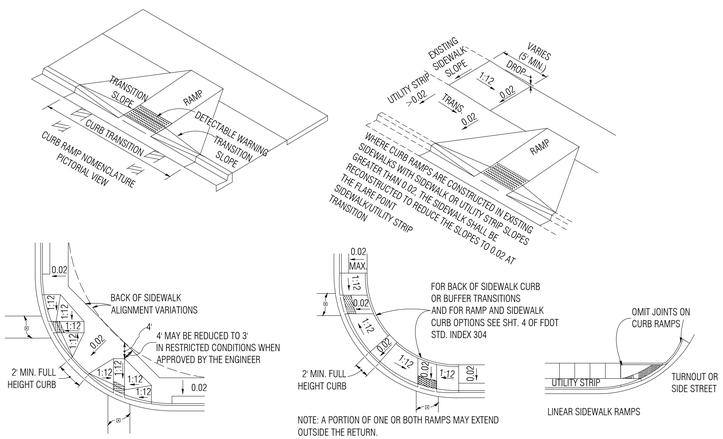
LONGITUDINAL CENTER JOINT @ 10' O.C., AND TRANSVERSE CONTRACTION JOINTS @ 20' O.C. 1/2" EXPANSION JOINTS 60' O.C. OR EVERY 3RD. TRANSVERSE JOINT TO BE AN EXPANSION JOINT.



NOTES:

1. THE LOCATION OF HANDICAPPED PARKING STALLS, LOADING ZONES, SIDEWALKS, AND RAMPS ON-SITE SHALL MEET CHAPTER 316.1955 OF THE FLORIDA STATUTES AND SECTION 4.1.3 OF THE FLORIDA ACCESSIBILITY CODE.
2. PARKING STALL SHALL BE MARKED WITH WHITE & BLUE PAINT PER FLORIDA ACCESSIBILITY CODE SECTION 4.6.1.
3. HANDICAP SIGN SHALL HAVE 7' CLEARANCE ABOVE FINISHED GRADE. TOP PORTION OF SIGN SHALL HAVE REFLECTORIZED BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER. BOTTOM PORTION SHALL HAVE A REFLECTORIZED WHITE BACKGROUND WITH BLACK LETTERS AND BLACK BORDER.

TYPICAL HANDICAP PARKING

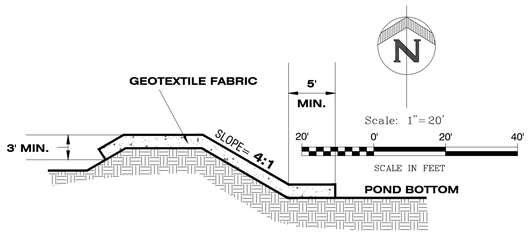


⊠CROSS WALK WIDTHS AND CONFIGURATION VARY; MUST CONFORM TO INDEX NO. 17344 AND 17346.

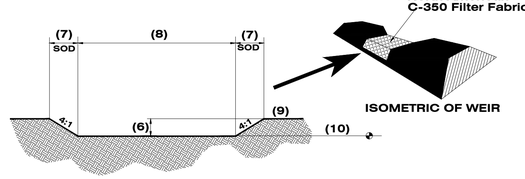
NOTE: A PORTION OF ONE OR BOTH RAMPS MAY EXTEND OUTSIDE THE RETURN.

REFER TO FDOT STANDARD INDEX LATEST EDITION INDEX 304 FOR ALL DETAILS AND NOTES.

SIDEWALK RAMPS DETAIL
FDOT STD. INDEX 304 PG 1 OF 6



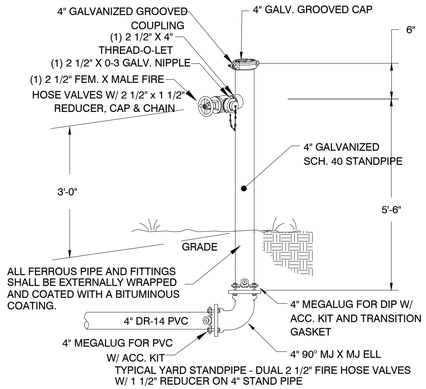
GRASS WEIR SECTION



TYPICAL WEIR SECTION
(FOR WET RETENTION)

WEIR SECTION DATA

WRA NUMBER	(6) (ft)	(7) (ft)	(8) (ft)	(9) (elev)	(10) (elev)
P-1	0.25'	1.00'	10.00'	91.00	90.75



WAYNE Automatic Fire Sprinklers, Inc.

STAND PIPE

LAKE COUNTY FLORIDA

DATE	REVISION
8-15-2012	1 REVISED PER LAKE COUNTY
9-24-12	2 ADDED STAND PIPE

ASTATULA LAKE COUNTY FIRE STATION

SECTION 32, TOWNSHIP 20 SOUTH, RANGE 26 EAST

DETAILS

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DATE:	JUNE 2012
DESIGNED BY:	CCH
DRAWN BY:	CCH
CHECKED BY.:	CCH
JOB NO.:	071082.0025
FILE NAME:	SITE 2

Sheet 4

CHARLES C. HIOTT, P.E.
Registered Eng 54813

GENERAL PROJECT DATA

FOR IDENTIFICATION OF CONTRACTUAL AGREEMENTS, THIS SET OF DRAWINGS IS DATED X X X. ANY REVISIONS THEREAFTER WILL BE NOTED AND DATED ON THE AFFECTED DRAWING(S).

PRIOR TO THE COMMENCEMENT OF ANY WORK, A PRECONSTRUCTION MEETING WITH LAKE COUNTY AND TOWN OF ASTATULA IS REQUIRED. THE TOWN OF ASTATULA SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF MAJOR PHASES OF CONSTRUCTION.

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLAN OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT, AND NO EXTRA COMPENSATION WILL BE ALLOWED.

DRAINAGE SYSTEMS

THE CONTRACTOR SHALL PERFORM ALL WORK PERTAINING TO DRAINAGE INCLUDING EXCAVATION OF W.R.A. PRIOR TO THE COMMENCEMENT OF OTHER WORK INCLUDED IN THESE PLANS. THE DRAINAGE FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE COURSE OF THIS CONTRACT. THE CONTRACTOR SHALL INCLUDE FUNDS IN THE DRAINAGE COSTS OF THE CONTRACT TO OPERATE AND MAINTAIN THE DRAINAGE SYSTEMS DURING THE WORK PROCESS.
THE UTILITIES ARE THE PROPERTY OF THE FOLLOWING:

ELECTRIC:
SECO
P.O. BOX 301
SUMTERVILLE, FL 33585
(352) 793-3801
CONTACT: DONNA HOMAN

CABLE:
FLORIDA CABLE
23748 S.R.40
ASTOR, FL 32102
(352) 728-8757
CONTACT: BILL BOTTICHER

TELEPHONE:
CENTURY LINK
33 N. MAIN ST
WINTER GARDEN, FL. 34787
(407) 814-5383
CONTACT: WADE RICH

WATER:
WELL

SANITARY:
SEPTIC TANK AND DRAINFIELD

ASBUILTS

THE ENGINEER SHALL DELIVER ASBUILT DRAWING PLANS IN DWG FORMAT IN AUTOCAD FILES VERSION 2000 OR 2004 (NO HIGHER). STANDARD TRANSFER MEDIA WILL BE ACCEPTED. THIS MEDIA INCLUDES CD OR DVD. ALL ASBUILT DATA SHALL BE PROVIDED BY A FLORIDA LICENSED SURVEYOR, SIGNED, SEALED AND DATED BY THE RESPONSIBLE PARTY. SEE INDIVIDUAL SECTIONS (STORM, WATER SYSTEM, ETC.) FOR ADDITIONAL ASBUILT REQUIREMENTS.

THE ENGINEER SHALL DELIVER ONE SCANNED SET OF APPROVED ASBUILT DRAWING PLANS. THE SCANNED SETS SHALL BE COMPLETE AND INCLUDE THE TITLE SHEET, PLAN/PROFILE SHEETS, CROSS-SECTIONS, AND DETAILS. EACH INDIVIDUAL SHEET CONTAINED IN THE PRINTED SET OF THE DRAWINGS SHALL BE INCLUDED IN THE ELECTRONIC SUBMITTAL, WITH EACH SHEET BEING CONVERTED INTO AN INDIVIDUAL TIFF (TAGGED IMAGE FILE). THE PLAN SHEETS SHALL BE SCANNED IN TIFF FORMAT AT 400 DPI RESOLUTION TO MAINTAIN LEGIBILITY OF EACH DRAWING. THEN, THE TIF IMAGES SHALL BE EMBEDDED INTO A SINGLE PDF (ADOBE ACROBAT) FILE REPRESENTING THE COMPLETE PLAN SET. THESE DRAWINGS WILL ASSIST IN THE PROCESS OF PERFORMING QUALITY CONTROL AND QUALITY ASSURANCE ON THE ELECTRONIC SUBMITTAL SPECIFIED IN THIS DOCUMENT. THE DRAWINGS WILL BE REVIEWED FOR FORMAT AND COMPLETENESS. SPECIFICALLY, THE FOLLOWING REQUIREMENTS SHALL BE MET.

1. INCLUDE A LABEL ON THE MEDIA INDICATING PROJECT NAME AND NUMBER, CONSULTANT NAME, PROJECT MANAGER AND TELEPHONE NUMBER, TYPE OF SUBMITTAL (APPROVED CONSTRUCTION PLANS OR ASBUILT DRAWINGS), ONLY DRAWINGS RELEVANT TO THE PROJECT'S PHASE OF SUBMITTAL SHALL BE INCLUDED. FOR EXAMPLE, DO NOT INCLUDE "BID SET" DRAWINGS IN A "ASBUILT DRAWING" SUBMITTAL. ALSO, DO NOT INCLUDE DRAWINGS OR DOCUMENTS THAT WOULD NOT NORMALLY BE INCLUDED IN THE SET OF PRINTED DRAWINGS, EXCEPT FOR BASE DRAWINGS OR DRAWINGS TO BE EXTERNALLY REFERENCED.
2. RECORD DRAWING DATA TO BE UPLOADED WILL INCLUDE ONLY NEW CONSTRUCTION AND CARE WILL BE TAKEN TO EXCLUDE ANY "EXISTING" FACILITIES FROM THIS DATASET SO AS TO NOT DUPLICATE INFORMATION IN THE GIS SYSTEM. EXISTING DATA CAN BE INCLUDED IN THE DRAWING BUT SHOULD RESIDE ON SEPARATE LAYERS. IT IS RECOMMENDED THAT THE PREFIX "EX-" BE ADDED TO THE LAYERS OF ALL EXISTING DATA
3. THE FOLLOWING ARE FILE FORMAT AND LAYER NAME STANDARDS:
   a) A FOLDER SHALL BE CREATED WITH THE NAMED PROJECT AND PHASE NUMBER
   b) A FILE NAMED COVERSHEET.DWG
   c) FILE NAMED SITE_PLAN.DWG SHOWING ONLY THE FOLLOWING 5 LAYERS VISIBLE:
      -LAYER NAMED LOTS
      -LAYER NAMED LOT NUMBERS
      -LAYER NAMED ADDRESSES
      -LAYER NAMED ROW SHOWING ALL RIGHTS-OF-WAYS
      -LAYER NAMED EOP SHOWING ALL EDGE OF PAVEMENTS
   d) A FILE NAMED MASTERUTILITYPLAN.DWG WITH SITE_PLAN.DWG X-REF AND ONLY THE FOLLOWING 3 LAYERS VISIBLE:
      -LAYER NAMED WATERLINE SHOWING DIFFERENT PIPE SIZES, WATER METERS, AND HYDRANTS
      -LAYER NAMED REUSEWATER AND ALL APPROPRIATE FEATURES
      -LAYER NAMED SEWER AND ALL APPROPRIATE FEATURES
   e) FILE NAMED GRADING_DRAINAGE.DWG WITH SITE_PLAN.DWG X-REF AND ONLY THE FOLLOWING 2 LAYERS VISIBLE:
      -LAYER NAMED STORMWATER AND ALL APPROPRIATE FEATURES
      -LAYER NAMED SPOTELEV SHOWING ALL SPOT ELEVATIONS
      -ANY OTHER LAYERS PERTINENT TO THE GRADING AND DRAINAGE OF THE SITE
   f) IF APPLICABLE, A FILE NAMED OFF_SITE_UTILITIES.DWG
      INCLUDE ANY OTHER FILES PERTINENT TO THE PROJECT (SURVEY, DETAILS, X-REFS ETC.)

PERMITS AND PERMIT REQUIREMENTS

THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF ALL REGULATORY AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS. A COPY OF THE PERMIT SHALL BE KEPT ON THE JOB AT ALL TIMES.

LAYOUT AND CONTROL

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL THE WORK TO BE CONSTRUCTED. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPENCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

QUALITY CONTROL TESTING REQUIREMENTS

ALLTESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR, TOWN OF ASTATULA, AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS. CONTRACTOR SHALL PROVIDE TESTING SERVICES THROUGH A FLORIDA LICENSED GEOTECHNICAL ENGINEERING FIRM ACCEPTABLE TO THE OWNER AND THE ENGINEER. CONTRACTOR TO SUBMIT TESTING FIRM TO OWNER FOR APPROVAL PRIOR TO COMMENCING TESTING.

SHOP DRAWINGS

SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT 6 SETS OF SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

EARTHWORK

EARTHWORK QUANTITIES

THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.

EROSION CONTROL

EROSION AND SILTRATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED. REFER TO WATER MANAGEMENT DISTRICT PERMIT FOR ADDITIONAL REQUIREMENTS FOR EROSION CONTROL AND SURFACE DRAINAGE. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITH SOD WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION. OTHER MATERIALS SHALL BE REVIEW AND APPROVED BY COUNTY.

WETLAND PROTECTION

THE LIMITS OF THE ON-SITE WETLANDS HAVE BEEN PROVIDED TO THE CONTRACTOR ON THE CONSTRUCTION PLANS OR ON PERMIT MATERIALS. THE WETLANDS ARE TO BE PROTECTED FROM DISTURBANCE AT ALL TIMES. CONTRACTOR SHALL PROVIDE EROSION, SILTATION, AND DIVERSION MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN A COPY OF EACH PERMIT RELATING TO WETLANDS AND WATER MANAGEMENT AND ADHERE TO ALL PROVISIONS AND CONDITIONS THERETO.

LIMITS OF DISTURBANCE

AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED. GRADING AND/OR CLEARING ON PROPERTIES OTHER THAN SHOWN ON THE APPROVED PLANS IS PROHIBITED.

TREE REMOVAL

THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER WHEN ALL WORK IS LAID OUT (SURVEY STAKED), SO THAT A DETERMINATION MAY BE MADE OF SPECIFIC TREES TO BE REMOVED. NO TREES ON THE CONSTRUCTION PLANS AS BEING SAVED SHALL BE REMOVED WITHOUT PERMISSION FROM THE OWNER, ENGINEER AND THE TOWN OF ASTATULA.

CLEARING AND GRUBBING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.

NO BURN PERMITS (INCLUDING THOSE FOR LAND CLEARING) WILL BE ISSUED IN THE TOWN OF ASTATULA WITHOUT PRIOR AUTHORIZATION.

MATERIAL STORAGE/DEBRIS REMOVAL

1) NO COMBUSTIBLE BUILDING MATERIALS MAY BE ACCUMULATED ON THE SITE AND NO CONSTRUCTION WORK INVOLVING COMBUSTIBLE MATERIALS MAY BEGIN UNTIL INSTALLATION OF ALL REQUIRED WATER MAINS AND FIRE HYDRANTS HAVE BEEN COMPLETED, DEP APPROVAL RECEIVED FOR THE WATER MAINS, AND THE HYDRANTS ARE IN OPERATION. CONSTRUCTION WORK INVOLVING NON-COMBUSTIBLE MATERIALS, SUCH AS CONCRETE, MASONARY AND STEEL MAY BEGIN PRIOR TO THE FIRE HYDRANTS BEING OPERATIONAL.

2) ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON-SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NONORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE. ALL CLAY ENCOUNTERED SHALL BE EXCAVATED OUT AND REPLACED WITH CLEAN GRANULAR FILL MATERIALS.

FILL MATERIAL

ALL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGATATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

COMPACTION

FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL FOR THE AFFECTED WORK.

PAVEMENT AND/OR ROAD AND RIGHT-OF-WAY WORK

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE ROADWAYS SHOWN ON THESE PLANS IS FDOT, LAKE COUNTY OR THE TOWN OF ASTATULA. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY.

GENERAL DESIGN INTENT

ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS INGRADE, AND NO UNUSUALLY STEEP OR REVERSE CROSS SLOPES. APPROACHES TO INTERSECTIONS AND ENTRANCE AND EXIT GRADES TO INTERSECTIONS WILL HAVE TO BE STAKED IN THE FIELD AT DIFFERENT GRADES THAN THE CENTERLINE GRADES TO ACCOMPLISH THE PURPOSES OUTLINED. IN ADDITION, THE STANDARD CROWN WILL HAVE TO BE CHANGED IN ORDER TO DRAIN POSITIVELY IN THE AREA OF INTERSECTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE AND THE ENGINEER SHALL BE CONSULTED SO THAT HE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTION TO ACCOMPLISH THE INTENT OF THE PLANS.

MATERIALS/CONSTRUCTION SPECIFICATIONS

MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 1991, OR LATEST EDITION.

PAVEMENT SECTION REQUIREMENTS

CONSTRUCTION OF ROADWAYS SHALL BE 12" OF STABILIZED SUBBASE WITH A LIMEROCK BEARING PATIO OF (LBR) 40 COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180, 6" OF LIMEROCK BASE COURSE, (LBR) 100, COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180 AND 2" TYPE S-111 OF VIRGIN ASPHALTIC CONCRETE SURFACE COURSE WITH A MINIMUM STABILITY OF 1500 LBS. SUBGRADE PREPARATION AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND SOILS REPORT RECOMMENDATIONS.

SIDEWALKS

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREA AS SHOWN ON THE CONSTRUCTION PLANS. THE 5' SIDEWALK SHALL BE CONSTRUCTED OF 4 INCHES OF CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. JOINTS SHALL BE EITHER TOOLED OR SAWCUT AT A DISTANCE OF 5' LENGTHS, HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

PAVEMENT MARKINGS/SIGNAGE

PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED AS SHOWN ON THE CONSTRUCTION PLANS AND SHALL MEET THE REQUIREMENTS OF THE OWNER/OPERATOR. SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION). A 48-HOUR PAVEMENT CURING TIME WILL BE PROVIDED PRIOR TO APPLICATION OF THE PAVEMENT MARKINGS. REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 17352.

TRAFFIC CONTROL

AN MOT PLAN SHALL BE SUBMITTED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK. A MINIMUM OF 2-WAY, ONE LANE TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION. ACCESS SHALL BE CONTINUOUSLY MAINTAINED FOR ALL PROPERTY OWNERS SURROUNDING THE WORK SITE AREA. LIGHTED WARNING DEVICES ARE TO BE OPERATIONAL PRIOR TO DUSK EACH NIGHT DURING CONSTRUCTION.

CURBING

CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. CONCRETE FOR CURBS SHALL BE DEPARTMENT OF TRANSPORTATION CLASS "1" CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTER. CONSTRUCTION OF CURBS SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (1991) SECTION 520 AND DETAILS PROVIDED ON THE CONSTRUCTION PLANS.

R/W RESTORATION

ALL AREAS WITHIN THE RIGHT-OF-WAYS SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL SWALES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMEROCK AND ROCKS AND SODDED AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS PRIOR TO FINAL INSPECTION. ALL GRASSING (SEED OR SOD) SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER/OPERATOR.

SITE ACCESS

ALL ACCESS TO THE JOB SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS, OR BY THE CONSTRUCTION EASEMENT AS APPROVED BY THE TOWN OF ASTATULA.

POTABLE WATER/FIRE SYSTEMS

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE WATER SYSTEM SHOWN ON THESE PLANS IS THE TOWN OF ASTATULA. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY, UNLESS OTHERWISE INDICATED ON PLANS.

LANDSCAPING

PROVIDE MINIMUM 5' SEPARATION FROM UTILITIES AND TREES WITH INVASIVE ROOT SYSTEMS.

PIPE MATERIALS

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL TOWN INFRASTRUCTURE TO BE CONSTRUCTED. WATER SYSTEM SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL MEET TOWN SPECIFICATIONS.

POLYVINYL CHLORIDE PLASTIC PIPE (PVC) 4" THROUGH 12" SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C900 (LATEST EDITION) AND SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI AND A DR (DIMENSION RATIO) OF 18. ALL PVC PIPE SHALL BEAR THE NSF LOGO FOR POTABLE WATER. JOINTS SHALL BE OF THE PUSH-ON TYPE AND COUPLINGS CONFORMING TO ASTM D3139, DR18 PIPE.

DUCTILE IRON PIPE (DIP) SHALL BE STANDARD PRESSURE CLASS 350 IN SIZES 4" THROUGH 12" AND CONFORM TO ANSI/AWWA C150/A21.50 (LATEST EDITION). ALL DUCTILE IRON PIPE SHALL HAVE A STANDARD THICKNESS OF CEMENT MORTAR LINING AS SPECIFIED IN ANSI/AWWA C104/A21.4 (LATEST EDITION). PIPE JOINTS SHALL BE OF THE PUSH-ON RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST EDITION).

PIPE DETECTOR WITH LOCATOR WIRE SHALL BE INSTALLED ON ALL WATER MAINS PER DETAIL.

PIPE MATERIALS CONT.

PIPE SIZES GREATER THAN 12" BE SEPARATELY SPECIFIED ON THE PLANS; WITH THICKNESS CLASSES TO BE SHOWN BASED ON WORKING PRESSURES, PIPE DEPTH AND TRENCH CONDITIONS. FITTINGS FOR DUCTILE IRON PIPE AND PVC C-900 PIPE SHALL BE DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA C153/A21.10 (LATEST EDITION) AND SHALL BE CEMENT LINED IN CONFORMANCE WITH ANSI/AWWA C104/A21.4 (LATEST EDITION).

POLYETHYLENE WRAP USED FOR CORROSION PREVENTION ON DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASTM D1248. THE MINIMUM NOMINAL THICKNESS SHALL BE 0.008 IN. (8 MILS). INSTALLATION OF POLY WRAP SHALL BE IN ACCORDANCE WITH AWWA C105. TRANSMISSION MAIN SHALL BE DIP RATED FOR 250 PSI.

VALVES

GATE VALVES SHALL BE RESILIENT SEAT AND SHALL CONFORM TO ANSI/AWWA C509.87 WITH HANDWHEEL OR WRENCH NUT, EXTENSION STEMS AND OTHER APPURTENANCES AS REQUIRED. MANUFACTURER'S CERTIFICATION OF THE VALVES COMPLIANCE WITH AWWA SPECIFICATION C509 AND TESTS LISTED THEREIN WILL BE REQUIRED. VALVES SHALL BE CLOW, DRESSER, KENNEDY, AMERICAN.

BUTTERFLY VALVES

BUTTERFLY VALVES SHALL MEET OR EXCEED THE DESIGN STRENGTH TESTING AND PERFORMANCE REQUIREMENTS OF AWWA C504, CLASS 150. VALVES SHALL BE DUCTILE IRON, RESILIENT SEAT, AND BE MANUFACTURED BY KENNEDY, MUELLER, M&H, AMERICAN. BUTTERFLY VALVES TO BE USED FOR SIZES GREATER THAN 12".

AIR RELEASE VALVES

AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATION AND METHOD OF INSTALLATION SHALL BE INDICATED ON THE DRAWINGS, OR AS DIRECTED BY THE ENGINEER. AIR RELEASE VALVES SHALL BE CRISP IN PRESSURE AIR VALVE TYPE.

VALVE BOXES

VALVE BOXES ON BURIED POTABLE WATER MAINS SHALL BE ADJUSTABLE, CAST IRON CONSTRUCTION, WITH MINIMUM INTERIOR DIAMETEROF 5" WITH COVERS CAST WITH THE INSCRIPTION IN LEGIBLE LETTERING ON TOP: WATER. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE, AND SHALL BE MANUFACTURED BY MUELLER COMPANY, MODEL 10364, OR APPROVED EQUAL. VALVE BOX PADS SHALL BE 18"x18"x4" THICK CONCRETE WITH #4 REINFORCING BARS. PAD TO BE SET AT FINISHED GRADE WITH RECESSED DETECTOR WIRE CONDUIT PORT PER DETAIL.

WATER SERVICES

UNLESS OTHERWISE NOTED IN THE PLANS, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS. CONTRACTOR SHALL CONSTRUCT WATER SERVICE THROUGH THE CURB STOP AND SET METER BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET. POLYETHYLENE (PE) PRESSURE PIPE FOR WATER SERVICES 1/2" THROUGH 3" SHALL CONFORM TO AWWA C901.88, MIN. 200 PSI. AND SHALL BE PHILLIPS DRISCO CTS 5100 (DR-9) ASTM D-2737, 200 PSI. ALL SERVICES SHALL INCLUDE THE FOLLOWING: LOCKING CURB STOPS, WYE BRANCHES, UNIONS AS REQUIRED, PE SERVICE PIPE AND CORPORATION STOPS. THE SERVICE SHALL BE COMPLETE THROUGH THE CURB STOP AS SHOWN ON THE DETAIL SHEET, AND SHALL BE OF THE TYPE REQUIRED FOR COMPATIBILITY WITH THE SERVICE LINES SPECIFIED, AND FITTINGS SHALL BE MANUFACTURED BY FORD. UNLESS OTHERWISE NOTED IN PLANS, UTILITY COMPANY SHALL PROVIDE AND INSTALL IRRIGATION METERS. WHERE RECLAIM SERVICE IS NOT PROVIDED, CONTRACTOR SHALL CONSTRUCT IRRIGATION SERVICE THROUGH THE CURB STOP AND SET NEW BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET.

MATERIALS AS REQUIRED BY THE TOWN OF ASTATULA

SERVICE SADDLE – FORD F202
CORPORATION STOP – FORD FB1000
CURB STOP – FORD B41-444W FOR 1" ONLY
– FORD BF43-777W FOR 1-1/2"
– FORD BF43-777W FOR 2"
METER BOX – SINGLE ONLY (NO DOUBLE METER BOXES ALLOWED), DEXOL WITH IRON READER DOOR WITH TOUCH READ LID. METER BOXES FOR 1-1/2" AND 2" SHALL BE CDR 17"x30" WITH TOUCH READ LID. METER BOXES IN TRAFFIC AREAS SHALL BE BROOKS 36 SERIES WITH TOUCH READ LID.
COMPOUND Y BRANCH – FORD Y44
JOINT RESTRAINT – MEGA LUG INSTALL OR PROVIDE TOWN WITH 1"x 3/4" BRASS BUSHING AT METER DISCHARGE CONNECTION. THE CONTRACTOR SHALL CUT A "W" IN THE CURB TOP AT EACH WATER SERVICE AND A "V" AT ALL VALVE LOCATIONS. CUT W'S AND V'S SHALL BE HIGHLIGHTED WITH BLUE PAINT. SEE WATER SYSTEM DETAILS FOR OTHER SERVICE LOCATION AND MARKING REQUIREMENTS.

PIPE INSTALLATION

PIPE INSTALLATION OF PVC WATER MAIN SHALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON PIPE WATER MAIN SHALL BE IN CONFORMANCE WITH AWWA C600.87.

COMPACTED BACKFILL SHALL BE TO 98% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12" MAXIMUM LIFT THICKNESS. OTHER COMPACTION OF BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12" MAXIMUM LIFT THICKNESS. SEE PIPE TRENCHING DETAILS.

MINIMUM COVER OVER ALL PIPE SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE. SEE PLAN AND PROFILE SHEETS FOR REQUIRED DEPTH.

WATER MAINS ARE TO BE INSTALLED SO AS TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18" OR A MINIMUM HORIZONTAL CLEARANCE OF 10' FROM ALL OTHER UTILITIES. IF THE MINIMUM CLEARANCE CAN NOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE SPECIFIED 10 FEET EITHER SIDE OF THE CROSSING. HORIZONTAL AND VERTICAL MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN WATER MAIN AND ALL OTHER UTILITIES SHALL COMPLY WITH 62-555.314 (1), (2), (3) AND (4), FAC.

ALL WATER MAINS SHALL BE INSTALLED WITH RESTRAINED JOINT FITTINGS. NO CONCRETE THRUST BLOCKS TO BE USED.

ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDRANTS, VALVES, ETC. SHALL BE PROVIDED WITH MEGALUG PIPE RESTRAINTS. FOR RESTRAINT CONSTRUCTION SPECIFICATIONS, REFER TO THE WATER SYSTEM DETAILS.

LAKE COUNTY
FLORIDA

DATE	REVISION
	1
	2
	3
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	5
	6
	7
	8

ASTATULA LAKE COUNTY FIRE STATION

SECTION 32, TOWNSHIP 20 SOUTH, RANGE 26 EAST

GENERAL NOTES

BOOTH ERN STRAUGHAN HIOTT, INC
ENGINEERS • SURVEYORS • LAND PLANNERS
350 North Sinclair Ave.
Tavares, Florida 32778
www.besinch.com
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 27029

DATE:	JUNE 2012
DESIGNED BY:	CCH
DRAWN BY:	CCH
CHECKED BY.:	CCH
JOB NO.:	071082.0025
FILE NAME:	GENERAL NOTES

Sheet 5

CHARLES C. HIOTT, P.E.
Registered Eng 54813

PIPE IDENTIFICATION

BLUE INDICATOR TAPE SHALL BE BURIED IN THE WATER MAIN TRENCH 18" DIRECTLY ABOVE THE WATER MAIN. A CONTINUOUS COPPER DETECTOR WIRE SHALL BE ATTACHED AS SHOWN ON THE WATER DETAIL SHEET.

ALL PIPE AND PIPE FITTINGS SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUB- PARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVE GROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LINE UNDERGROUND PIPE.) RHINO TRIVIEW FLEXMARKING POST SHALL BE PLACED ON ALL TRANSMISSION MAINS AT 500 FEET.

DISINFECTION AND TESTING

ALL PIPE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651.86.

PVC WATER MAINS SHALL BE INSTALLED; PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA C605 AND DUCTILE IRON WATER MAINS IN ACCORDANCE WITH AWWA C600, [62-555.320(21)(B) 1 AND 62-555.330, F.A.C]. ALL INSTALLATION, TESTING AND FIELD PROCEDURES MUST BE PROVIDED AND MUST CONFORM TO THE APPLICABLE AWWA STANDARDS.

THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE ALL NECESSARY TEST PUMPING EQUIPMENT, WATER, WATER METERS, PRESSURE GUAGES AND OTHER EQUIMENT, MATERIAL AND FACILITIES REQUIRED FOR ALL HYDROSTATIC AND LEAKAGE TESTING. CONTRACTOR SHALL CONTACT THE ENGINEER, OWNER/OPERATOR AND CITY IN WRITTEN FORM, FORTY EIGHT (48) HOURS IN ADVANCE OF PROPOSED TESTING. THE CONTRACTOR SHALL PERFORM SATISFACTORY PRETESTING PRIOR TO NOTIFICATION.

THE WATER SYSTEM SHALL BE SOAK TESTED 24 HOURS @150 PSI AND TESTED FOR LEAKAGE AT 150 PSI FOR TWO (2) HOURS, WITH ALLOWABLE LEAKAGE IN ACCORDANCE WITH ABOVE STANDARDS.

CONTRACTOR SHALL OBTAIN A COPY OF THE FEDP WATER SYSTEM PERMIT AND PULL BACTERIOLOGICAL TEST SAMPLES FROM THE SAMPLE POINTS SPECIFIED IN THAT PERMIT. CONTINUITY TEST SHALL BE PERFORMED ON WIRE BY CONTRACTOR.

CONNECTIONS TO EXISTING WATER MAINS

PRIOR TO THE CONNECTION TO ANY EXISTING MAIN, THE PROPOSED WATER MAIN SHALL BE DISINFECTED, HAVE ENGINEER APPROVED PRESSURE TESTING AND HAVE FDEP CLEARANCE. REFER TO FDEP PERMIT FOR ANY ADDITIONAL REQUIREMENTS.

ASBUILT DRAWINGS

THE CONTRACTOR SHALL PROVIDE VERTICAL AND HORIZONTAL "ASBUILT" INFORMATION RELATIVE TO ALL CONSTRUCTED UTILITIES AND STRUCTURES. THREE SETS SHALL BE PROVIDED FOR REVIEW. ONCE APPROVED BY THE UTILITY, ONE REPRODUCIBLE SET SHALL BE PROVIDED.

AS-BUILT INFORMATION FOR THE WATER SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

1. LOCATION OF ALL VALVES, FITTINGS, HYDRANTS AND SERVICES – HORIZONTAL AND VERTICAL.

2. LOCATION OF THE WATER MAIN TIED WITH COORDINATES FOR THE SUBDIVISION.

3. CERTIFICATION AS TO THE SYSTEM MEETING THE MINIMUM COVER REQUIREMENTS.

4. HORIZONTAL AND VERTICAL DATA FOR ANY CONSTRUCTION WHICH DEVIATES FROM THE APPROVED 4. ENGINEERING PLANS.

5. UTILITY LOCATES ON SYSTEMS INSTALLED UNDER THIS CONTRACT SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER UNTIL ASBUILT DRAWINGS ARE REVIEWED AND APPROVED BY THE UTILITY.

SANITARY SEWER NOTES

MAINS AND MANHOLES

1. ALL GRAVITY SANITARY SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE CONSTRUCTED OF SDR26 PVC PIPE MEETING ASTM 3034, AND SHALL HAVE A MINIMUM COVER OF THREE (3) FEET.

2. WHERE REQUIRED, MAINS SHALL BE CLASS 150 DUCTILE IRON PIPE (DIP) MEETING AWWA C150 AND C151. MAINS SHALL BE 60 MIL EPOXY COATED WITH POLYETHYLENE WRAP CONFORMING TO AWWA C105.

3. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL.

4. JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI-B-7.

5. ALL SANITARY MANHOLES SHALL BE PRECAST CONCRETE WITH A MINIMUM WALL THICKNESS OF FIVE (5) INCHES FOR INSIDE DIAMETER OF FOUR (4) FEET.

6. MANHOLES SHALL MEET ASTM C-478. RING AND COVER SHALL BE TRAFFIC BEARING H-20 CLASS 30 MEETING ASTM A-48.

7. INTERIOR AND EXTERIOR WALLS OF ALL MANHOLES SHALL HAVE A MINIMUM OF TWO (2) 8 MIL COATS OF AN APPROVED PROTECTIVE COAL TAR EPOXY.

8. ALL MAINS NOT LOCATED UNDER PAVEMENT SHALL BE MARKED BY A THREE (3) INCH WIDE METALLIC LOCATOR TYPE 18" ABOVE THE CENTERLINE OF PIPE. DROP MANHOLE IF INVERT DIFFERENCE IS GREATER THAN OR EQUAL TO TWO (2) FEET.

9. LINING IS REQUIRED OF ALL MANHOLES WITH AN INCOMING SLOPE GREATER THAN 5%.

10. NO DROP SHALL BE GREATER THAN 15 FEET.

LATERALS

1. ALL SERVICE LATERALS AND FITTINGS SHALL BE A MINIMUM OF 6" IN DIAMETER.
2. ALL LATERALS SHALL TERMINATE WITH A 4" CLEAN-OUT AT THE PROPERTY LINE, AND AT A DEPTH TO FINAL GRADE OF 3 FEET. SEE DETAILS FOR LOCATION.
3. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2"x2"x2" ABOVE GRADE WOODEN STAKE OR APPROVED MARKER AND CURB MARKED WITH A '5'.

FORCEMAINS

1. FORCEMAINS SHALL BE CLASS 350 EPOXY 401 LINED DIP. DIP PIPE SHALL HAVE INTEGRAL BELL PUSH ON TYPE JOINTS CONFORMING TO ASTM D3139.

2. ALL FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON WITH 250 PSI MINIMUM PRESSURE RATING. SUITABLE COUPLINGS COMPLYING WITH ASTM SPECIFICATIONS ARE REQUIRED FOR JOINING DISSIMILAR MATERIALS.

3. METALLIC MARKING TAPE SHALL BE PLACED OVER THE MAIN AT A MAXIMUM DEPTH OF TWO (2) FEET BELOW THE SURFACE AND TIED INTO ALL VALVE BOXES. TESTING FOR CONTINUITY WILL BE REQUIRED.

4. ALL MAINS SHALL HAVE A MINIMUM COVER OF THREE (3) FEET.

5. ALL CONNECTIONS TO EXISTING SEWER FORCEMAINS SHALL BE ACCOMPLISHED WITH A WET TAP AND RESTRAINTS.

6. PROVIDE JOINT RESTRAINT AS SHOWN ON THE WATER DETAIL SHEET.

7. AIR RELEASE AND VACUUM VALVES MANUFACTURER SHALL BE APPROVED BY THE TOWN.

TESTING

1. SEWAGE COLLECTION SYSTEM
   - A. ALL GRAVITY SEWER MAINS REQUIRE LOW PRESSURE AIR TESTING IN ACCORDANCE WITH THE LATEST UNI-BELL STANDARD FOR LOW PRESSURE AIR TESTS. AIR TESTS, AS A MINIMUM, SHALL CONFORM TO THE TEST PROCEEDURES DESRIBED IN ASTM SPECIFICATIONS, ASTM F1417 FOR PLASTIC PIPE.
   - B. ALL SEWER MAINS AND LATERALS SHALL BE VIDEO INSPECTED BY A COUNTY APPROVED VENDOR.
   - C. ALL MANHOLES SHALL BE INSPECTED FOR INFILTRATION, ALIGNMENT, FLOW CHANNEL CONSTRUCTION AND COAL TAR EPOXY PAINT THROUGHOUT.
   - D. HYDRO-STATIC TESTS CONSISTING OF A HYDROSTATIC PRESSURE TEST AND HYDROSTATIC LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY INSTALLED SEWER FORCE MAIN SYSTEM PRESSURE PIPES AND APPURTENANCES IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE. THE PRESSURE SHALL BE 150 PSI FOR TWO (2) HOURS.
   - E. DEFLECTION TESTS ARE REQUIRED FOR ALL FLEXIBLE PIPE. TESTS SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

TEMPORARY JUMPER CONNECTION NOTES

A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS. THE DETAIL PROVIDED IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR TAKING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTING OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE HAS BEEN OBTAINED FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED BY THE TOWN OF CLERMONT. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM LEVEL OF DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED AND THE LINES ARE PLACED INTO SERVICE.

ADEQUATE RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED.

PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THE TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF AWWA C651-92.

FLUSHING OF ALL WATER MAINS SAHLL BE DONE THROUGH THE TIE-IN VALVE UNDER CONTROLLED CONDITIONS BY THE TOWN ONLY. FULL BORE FLUSH IS REQUIRED. THE FOLLOWING PROCEEDURES SHALL BE FOLLOWED:

A. THE TIE-IN VALVES SHALL BE OPERATED ONLY BY THE TOWN AND PRESSURE TESTED IN THE PRESENCE OF THE TOWN AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO TIE-IN. VALVES WHICH ARE NOT WATERTIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.

B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN, FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT AND FOR MAINTAINING CHLORINE RESIDUALS IN THE MAINS.
1. FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
2. ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO THE TOWN OPENING THE TIE-IN VALVE.
3. PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT. THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.
4. TIE-IN VALVE SHALL BE OPENED BY THE TOWN A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 PSI.

C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE TOWN UNTIL THE FLUSHING BEGINS.

D. THE TIE-IN VALVE SHALL BE OPENED ONLY BY THE TOWN FOR FLUSHING OF THE NEW MAIN. THE PROCEEDURE SHALL BE DONE BY THE TOWN AND OBSERVED BY THE ENGINEER.

E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSE POSITION BY THE TOWN. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE RPZ BACK FLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION, AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A CERTIFIED BACK FLOW PREVENTION TECHNICIAN AS APPROVED BY THE TOWN OF ASTATULA CROSS-CONNECTION CONTROL PROGRAM. A CERTIFICATE IS REQUIRED BY THE TOWN.

EXCEPT AS REQUIRED TO FLUSH LINES TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSE POSITION BY THE TOWN. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER AGENCIES. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS. THERE BE NO LEAKAGE.

ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACK FLOW PREVENTION DEVICE, FITTINGS, VALVES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER METERS SHALL BE PAID FOR AT THE CITY HALL AND SHALL BE DELIVERED TO THE JOB SITE BY THE UTILITIES DEPARTMENT.

FIRE HYDRANTS

FIRE HYDRANTS SHALL CONFORM TO THE LATEST EDITION OF AWWA C502.85 AND SHALL BE FURNISHED COMPLETE WITH WRENCH AND OTHER APPURTENANCES. MANUFACTURER'S CERTIFICATION OF COMPLIANCE WITH AWWA C502 AND TESTS LISTED THEREIN WILL BE REQUIRED. ALL HYDRANTS SHALL BE BREAKAWAY TYPE, WITH THE BREAKAWAY SECTION LOCATED SLIGHTLY ABOVE THE FINISH GROUND LINE. HYDRANTS SHALL CONTAIN TWO, TWO AND ONE-HALF INCH (2-1/2") HOSE CONNECTIONS, AND ONE, FOUR AND ONE-HALF INCH (4-1/2") STEAMER CONNECTION WITH NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS, FIVE AND ONE-QUARTER INCH (5-1/4") VALVE OPENING, SIX INCH (6") DIAMETER MECHANICAL JOINT INLET, ONE AND ONE-HALF INCH (1-1/2") PENTAGON OPERATING NUT. SHALL OPEN COUNTERCLOCKWISE. HYDRANT MUST BE PAINTED AT FACTORY BY THE MANUFACTURER AND SHALL BE PAINTED IN CONFORMANCE WITH TOWN OF ASTATULA REQUIREMENTS (COLORS BASED ON DELIVERED FIRE FLOW). HYDRANTS SHALL BE MUELLER CENTRON (TRAFFIC MODEL A-423) NO SUBSTITUTE. FIRE HYDRANTS TO BE THE BREAK AWAY TYPE WITH A CAST IRON DUCTILE IRON MECHANICAL JOINT HYDRANT TEE, WITH RESILIENT SEAT AND MECHANICAL JOINT GATE VALVE.

FIRE HYDRANTS CONT.

1. BLUE PAVEMENT REFLECTORS SHALL BE PLACED IN THE CENTERLINE OF THE DRIVING LANE CLOSEST TO AND DIRECTLY IN FRONT OF EACH FIRE HYDRANT.

2. A POST-CONSTRUCTION FIRE FLOW TEST SHALL BE CONDUCTED. HYDRANTS SHALL DELIVER THE REQUIRED GPM PER THE TOWN OF ASTATULA LAND DEVELOPMENT REGULATIONS WITH A RESIDUAL PRESSURE OF 20 PSI. CONTRACTOR SHALL NOTIFY TOWN OF ASTATULA ENGINEERING DEPARTMENT WHEN HYDRANTS ARE READY TO BE FLOW TESTED. FOR FIRE HYDRANTS LOCATED WITHIN THE TOWN OF ASTATULA, CONNECTED TO THE TOWN OF ASTATULA'S WATER SYSTEM, AND/OR LOCATED WITHIN TOWN OF ASTATULA FIRE DEPARTMENT'S PROTECTION AREA, THIS TEST SHALL BE CONDUCTED BY TOWN OF ASTATULA PERSONNEL. THIS TEST SHALL BE PROVIDED BY THE CONTRACTOR FOR LOCATIONS NOT INCLUDED ABOVE. THIS TEST MAY BE WITNESSED BY THE OWNER/OPERATOR IF REQUESTED AT TIME OF NOTIFICATION THAT HYDRANTS ARE READY FOR FLOW TEST.

3. IF A PERMIT FOR THE WATER SYSTEM IS REQUIRED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), THE SYSTEM SHALL BE ACCEPTED AND APPROVED BY DEP PRIOR TO BEING PRESSURIZED OFF OF THE TOWN SYSTEM AND PRIOR TO ANY FLOW TESTS BEING CONDUCTED.

4. FIRE HYDRANTS AND FIRE PROTECTION APPLIANCES SHALL BE KEPT ACCESSIBLE TO THE FIRE DEPARTMENT AT ALL TIMES. THE FOLLOWING CLEARANCES SHALL BE MAINTAINED FOR ALL FIRE HYDRANTS AND FIRE PROTECTION APPLIANCES. CLEARANCE OF SEVEN AND ONE-HALF FEET (7'-6") IN FRONT OF AND TO THE SIDES OF A FIRE HYDRANT, WITH A FOUR FOOT (4') CLEARANCE TO THE REAR OF THE HYDRANT. CLEARANCES OF SEVEN AND ONE-HALF FEET (7'-6") IN FRONT OF AND TO THE SIDES OF THE APPLIANCES. NO PERSON SHALL PLACE OR KEEP ANY POST, FENCE, VEHICLE, GROWTH, VEGETATION, TRASH OR STORAGE OF OTHER MATERIALS THAT WOULD OBSTRUCT A FIRE HYDRANT OR FIRE PROTECTION APPLIANCE AND HINDER OR PREVENT ITS IMMEDIATE USE BY FIRE DEPARTMENT PERSONNEL. SUCH FIRE HYDRANT OR FIRE PROTECTION APPLIANCE SHALL BE KEPT READILY VISIBLE AT ALL TIMES.

5. FIRE HYDRANTS SHALL NOT BE LOCATED CLOSER THAN THREE (3) FEET TO OR MORE THAN TWENTY (20) FEET FROM THE EDGE OF A STREET, DRIVE OR OTHER ACCESSWAY. UNLESS OTHERWISE REQUESTED BY THE FIRE OFFICIAL, THE 4-1/2" CONNECTION SHALL FACE THE NEAREST ROADWAY, OR IF LOCATED WITHIN A COMPLEX PARKING AREA, SHALL FACE THE NEAREST TRAFFIC WAY. NO HYDRANT SHALL BE INSTALLED WHERE PEDESTRIAN OR VEHICULAR TRAFFIC WOULD INTERFERE WITH THE USE OF THE HYDRANT. THE STANDARD FIRE HYDRANT APPROVED FOR USE IN THE TOWN IS MUELLER MODEL A-423. THE TOWN'S STANDARD FIRE HYDRANT DETAIL AND NOTES ARE INCLUDED IN THE SITE PLANS. ALL FIRE HYDRANTS AND MAINS, INCLUDING THOSE PRIVATELY OWNED, THAT ARE CONNECTED TO THE TOWN'S POTABLE WATER SYSTEM, SHALL CONFORM TO TOWN STANDARDS.

6. A MINIMUM NUMBER OF FIRE HYDRANTS SHALL BE PROVIDED AND/OR AVAILABLE TO PROVIDE EQUAL TO OR GREATER THAN THE NEEDED FIRE FLOW FOR ALL BUILDINGS ON THE SITE BASED ON THE FOLLOWING CREDITS: HYDRANT(S) WITHIN 300 FEET OF THE BUILDING, 1,000 GPM CREDIT; HYDRANT(S) 301 TO 600 FEET, 670 GPM CREDIT; HYDRANT(S) 601 TO 1,000 FEET, 250 GPM CREDIT.

7. FIRE HYDRANTS THAT HAVE NOT BEEN TESTED AND PLACED INTO SERVICE MUST BE CLEARLY MARKED AS 'OUT OF SERVICE' USING INDUSTRY ACCEPTED METHODS (BAGGING, TAGGING, ETC).

CONNECTIONS TO TOWN WATER MAINS

ALL DOUBLE DETECTOR CHECK VALVE ASSEMBLIES (DDCV) INSTALLED TO ISOLATE A PRIVATE FIRE SYSTEM SUPPLYING FIRE HYDRANTS FROM THE TOWN'S POTABLE WATER SYSTEM SHALL HAVE TAMPER SWITCH DEVICES INSTALLED ON THE DDCV ASSEMBLY VALVES WHENEVER ANY AUTOMATIC FIRE SPRINKLER SYSTEM IS INSTALLED BEYOND THE DDCV. THESE TAMPER SWITCHES SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM FOR ALL INDIVIDUAL BUILDINGS PROTECTED BY A FIRE SPRINKLER SYSTEM.

FIRE DEPARTMENT CONNECTIONS

ANY FIRE DEPARTMENT CONNECTION SIAMESE (FDC) FOR FIRE SPRINKLER OR STANDPIPE SYSTEMS MUST BE WITHIN 100 FEET OF A FIRE HYDRANT. THE FDC MAY BE INSTALLED DIRECTLY ON THE DOUBLE DETECTOR CHECK VALVE BACK FLOW PREVENTOR AS LONG AS THE REQUIREMENT TO BE WITHIN 100 FEET OF A FIRE HYDRANT IS COMPLIED WITH. FIRE DEPARTMENT CONNECTIONS SHALL BE IDENTIFIED BY A SIGN THAT STATES, "NO PARKING FIRE DEPARTMENT CONNECTION" AND SHALL BE DESIGNED IN ACCORDANCE WITH FDOT STANDARDS FOR INFORMATION SIGNAGE. THE LOCATION OF ANY FDC MUST BE SHOWN ON THE SITE PLANS UTILITY SHEET.

DEDICATED FIRE MAINS

1. THE "POINT OF SERVICE" FOR ANY FIRE MAIN MUST BE CALLED OUT ON THE UTILITY SHEET OF THE SITE PLANS. THIS IS THE POINT WHERE A WATER LINE BECOMES DEDICATED TO ONLY FIRE PROTECTION, SUCH AS SUPPLYING ONLY A FIRE HYDRANT OR FIRE SPRINKLER SYSTEM, AND THERE IS NO POTABLE WATER SUPPLY COMING OFF OF THE WATER LINE BEYOND THIS POINT.
2. LABEL DEDICATED FIRE MAINS AT "FL" ON THE SUBMITTED PLANS.
3. FIRE MAINS WILL BE SEPARATELY PERMITTED AND INSPECTED BY THE TOWN FIRE DEPARTMENT.

FIRE DEPARTMENT ACCESS

FIRE DEPARTMENT ACCESS ROADS SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH THE FLORIDA FIRE PREVENTION CODE AND RULES ESTABLISHED BY THE LAKE COUNTY FOR EVERY FACILITY, BUILDING, OR PORTION OF A BUILDING HEREAFTER CONSTRUCTED OR RELOCATED. A FIRE DEPARTMENT ACCESS ROAD SHALL EXTEND TO WITHIN 50 FEET (15 m) OF AN EXTERIOR DOOR PROVIDING ACCESS TO THE INTERIOR OF THE BUILDING. FIRE DEPARTMENT ACCESS ROADS SHALL BE PROVIDED SUCH THAT IN ANY PORTION OF THE FACILITY OR ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY OF A BUILDING IS LOCATED NOT MORE THAN 150 FEET (46 m) FROM FIRE DEPARTMENT ACCESS ROADS AS MEASURED BY A ROUTE APPROVED BY THE LOCAL FIRE OFFICIAL AROUND THE EXTERIOR OF THE BUILDING OR FACILITY (THE DISTANCE SHALL BE PERMITTED TO BE INCREASED TO 450 FEET WHEN BUILDINGS ARE PROTECTED WITH AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM THAT IS INSTALLED IN ACCORDANCE WITH NFPA STANDARDS).

FIRE DEPARTMENT ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET (6.1 m),

AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET 6 INCHES (4.1m), SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS (MINIMUM 32 TONS), AND SHALL BE PROVIDED WITH A SURFACE SUITABLE FOR ALL-WEATHER DRIVING CAPABILITIES. THE TURNING RADIUS OF A FIRE DEPARTMENT ACCESS ROAD SHALL BE AS APPROVED BY THE AHJ. DEAD-END FIRE DEPARTMENT ACCESS ROADS IN EXCESS OF 150 FEET (46 m) IN LENGTH SHALL BE PROVIDED WITH APPROVED PROVISIONS FOR THE TURNING AROUND OF FIRE APPARATUS. WHEN A BRIDGE IS REQUIRES TO BE USED AS PART OF FIRE DEPARTMENT ACCESS ROAD, IT SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH NATIONALLY RECOGNIZED STANDARDS. THE BRIDGE SHALL BE DESIGNED FOR A LIVE LOAD SUFFICIENT TO CARRY THE IMPOSED LOADS OF FIRE APPARATUS (MINIMUM 32 TONS). THE ANGLE OF APPROACH AND DEPARTURE FOR ANY MEANS OF FIRE DEPARTMENT ACCESS SHALL NOT EXCEED 1 FOOT DROP IN 20 FEET (0.3 m DROP IN 6 m), AND THE DESIGN LIMITATIONS OF THE FIRE APPARATUS OF THE FIRE DEPARTMENT SHALL BE SUBJECT TO APPROVAL BY THE AHJ. THE LOAD RATING OF FIRE DEPARTMENT ACCESS ROADS AND BRIDGES SERVING DETACHED ONE OR TWO-FAMILY OCCUPANSIES ONLY MAY BE DECREASED UPON APPROVAL BY THE LOCAL FIRE OFFICIAL.

THE REQUIRED WIDTH OF A FIRE DEPARTMENT ACCESS ROAD SHALL NOT BE OBSTRUCTED IN ANY MANNER, INCLUDING BY THE PARKING OF VEHICLES. MINIMUM REQUIRED WIDTHS AND CLEARANCES SHALL BE MAINTAINED AT ALL TIMES. ENTRANCES TO ROADS, TRAILS, OR OTHER ACCESSWAYS THAT HAVE BEEN CLOSED WITH GATES AND BARRIERS SHALL NOT BE OBSTRUCTED BY PARKED VEHICLES. FIRE LANE MARKINGS MUST BE INSTALLED IN ANY LOCATIONS WHERE VEHICLES MAY PARK AND BLOCK TRAFFIC WAYS OR FREE AND CLEAR ACCESS FOR FIRE AND EMERGENCY APPARATUS.

FIRE LANE MARKINGS ON THE PAVEMENT MUST BE IN DOT YELLOW OR RED AND INCLUDE A CROSSHATCH AREA THAT EXTENDS A MINIMUM OF THREE FEET OUT FROM THE CURB. ANY CURBS MUST ALSO BE PAINTED DOT YELLOW OR RED. MARKED TRAFFIC SURFACES MUST HAVE THE WORDS, FIRE LANE – NO PARKING, PAINTED ON THE SURFACE. THIS WORDING MUST REPEAT THE ENTIRE LENGTH OF THE FIRE LANE, AND BE SPACED NO MORE THAN 50 FEET APART. WORDING ON PAVED SURFACES MUST BE A MINIMUM OF 10" TALL. ANY REQUIRED FIRE LANES SHALL BE MARKED WITH SIGNS WITH THE WORDING, "NO PARKING FIRE LANE BY ORDER OF THE FIRE DEPARTMENT." SUCH SIGNS SHALL BE 12 INCHES BY 18 INCHES WITH A WHITE BACKGROUND AND RED LETTERS AND SHALL BE A MAXIMUM OF 7 FEET IN HEIGHT FROM THE ROADWAY TO THE BOTTOM PART OF THE SIGN. THE SIGNS SHALL BE WITHIN SIGHT OF THE TRAFFIC FLOW AND BE A MAXIMUM OF 50 FEET APART.

A 20' x 20' CROSS-HATCH AREA MUST BE INDICATEDON THE PAVEMENT IN FRONT OF AND CENTERED ON HYDRANTS ANY FIRE DEPARTMENT CONNECTIONS FOR FIRE SPRINKLER OR STANDPIPE SYSTEMS THAT ARE LOCATED ON BUILDINGS OR IN PARKING LOTS WHERE VEHICLES MAY PARK AND BLOCK CLEAR ACCESS TO THE CONNECTION. THE CROSS-HATCH AREA MUST INCLUDE WORDING AS SPECIFIED ABOVE. A SIGN INDICATING "NO PARKING FIRE DEPARTMENT CONNECTION" MUST BE INSTALLED IN THIS AREA.

THE CURB MUST BE PAINTED DOT YELLOW OR RED, FOR A LENGTH OF 30 FEET CENTERED ON ANY FIRE OR FIRE DEPARTMENT SIAMESE CONNECTIONS THAT ARE INSTALLED ALONG A PARKING LOT, DRIVE OR STREET TO PREVENT VEHICLES FROM PARKING WITHIN 15 FEET OF THE HYDRANT OR CONNECTION. WORDING MUST BE PAINTED ON CURBS IN THESE AREAS INDICATING "NO PARKING FIRE LANE" AND MUST BE A MINIMUM OF 3" TALL.

BUILDING MARKINGS
ADDRESS NUMERALS SHALL NOT BE LESS THAN THREE INCHES IN HEIGHT FOR RESIDENTIAL BUILDINGS, STRUCTURES, OR PORTIONS THEREOF, AND AT LEAST SIX INCHES IN HEIGHT FOR ALL OTHER BUILDINGS, STRUCTURES OR PORTIONS THEREOF. ADDRESS NUMERALS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS, NO CURSIVE LETTERS.

COMMERCIAL BUILDINGS
"KEY LOCK BOX APPROVED BY A LAKE COUNTY FIRE OFFICIAL" WILL BE REQUIRED ON ALL COMMERCIAL BUILDINGS (NFPA 1, CODE CHAPTER 3-6 AS ADAPTED IN THE FLORIDA FIRE PREVENTION CODE THROUGH FLORIDA ADMINISTRATIRVE CHAPTER 4A-60.003, RULES OF THE STATE FIRE MARSHAL, AND AUTHORIZED BY FLORIDA STATUTES 633.0215, 633.025). THESE SHALL BE INSTALLED ON THE EXTERIOR WALL OF THE BUILDING WITHIN ONE FOOT OF THE LEFT SIDE OF THE MAIN PUBLIC ENTRANCE DOOR AT A HEIGHT OF SIX (6) FEET. IN THE CASE OF A MULTI-OCCUPANCY BUILDING, SUCH AS A ROW OF STORES, MULTI-OFFICE BUILDING, ETC., ONLY ONE KEY LOCK BOX PER BUILDING WILL BE REQUIRED UNLESS EXTENUATING CIRCUMSTANCES INDICATE THE NEED FOR ADDITIONAL LOCK BOXES. THIS BOX SHALL BE INSTALLED ON THE EXTERIOR WALL OF THE BUILDING WITHIN ONE FOOT OF THE LEFT END OF THE SIDE OF THE BUILDING CONTAINING THE MAIN PUBLIC ENTRANCE (AS YOU ARE FACING THE MAIN ENTRANCE) AT A HEIGHT OF SIX (6) FEET. IN THE CASE OF A MULTI-FAMILY COMPLEX, ONLY ONE KEY LOCK BOX WILL BE REQUIRED FOR THE COMPLEX UNLESS EXTENUATING CIRCUMSTANCES INDICATE THE NEED FOR ADDITIONAL KEY LOCK BOXES. THIS BOX SHALL BE LOCATED AT THE MAIN ENTRANCE TO THE CLUBHOUSE, INSTALLED AS INDICATED ABOVE FOR COMMERCIAL BUILDINGS. IF THERE IS NO CLUBHOUSE, THE BOX SHALL BE INSTALLED PER A LAKE COUNTY FIRE OFFICIAL. A LAKE COUNTY FIRE OFFICIAL MAY BE CONTACTED IF IT IS NOT POSSIBLE TO INSTALL THE BOX AT THE LOCATIONS INDICATED ABOVE. THE LAKE COUNTY FIRE OFFICIAL WILL MAKE A DETERMINATION AS TO THE LOCATION WHERE THE BOX WILL BE INSTALLED.

LOCK BOXES SHALL CONTAIN KEYS TO THE BUILDING (INCLUDING ENTRANCE DOORS AND ALL ELECTRICAL AND MECHANICAL ROOMS) AND ANY SYSTEMS IN THE BUILDING (SUCH AS FIRE ALARM PANELS, FIRE ALARM PULL STATIONS, SMOKE DETECTOR RESET, SPRINKLER SYSTEMS, ELEVATORS, ETC.). BOXES FOR MULTI-OCCUPANCY BUILDINGS AND MULTI-FAMILY COMPLEXES SHALL BE OF SUFFICIENT SIZE TO ACCOMMODATE KEYS FOR EACH INDIVIDUAL OCCUPANCY AND MASTER KEYS FOR EACH SEPARATE BUILDING, AS WELL AS ANY SYSTEMS IN ALL OCCUPANCIES AND BUILDINGS. ALL LOCK BOXES SHALL ALSO CONTAIN BUSINESS CARDS WITH AFTER-HOURS EMERGENCY CONTACT NUMBERS FOR EACH OCCUPANCY. THE CODE(S) FOR SILENCING AND RESETTING ANY FIRE ALARM SYSTEMS SHALL BE WRITTEN ON THE BACK OF THE BUSINESS CARD(S) FOR EACH OCCUPANCY.

APPLICATIONS FOR THE PURCHASE OF "KEY LOCK BOX" EQUIPMENT ARE AVAILABLE FROM THE FIRE DEPARTMENT. EACH BOX TO BE INSTALLED WITHIN THE LAKE COUNTY WILL BE KEYED TO ACCOMMODATE CLERMONT FIRE DEPARTMENT'S LOCK BOX KEY. BUILDING OWNERS OR OCCUPANTS WILL NOT HAVE A KEY TO THE BOX. THE OWNER OR DEVELOPER SHALL NOTIFY THE FIRE DEPARTMENT (352-394-7662) AFTER THE BOX HAS BEEN INSTALLED AND ALL REQUIRED KEYS ARE AVAILABLE. A FIRE DEPARTMENT REPRESENTATIVE WILL MEET A REPRESENTATIVE OF THE BUILDING AT THE SITE TO LOCK THE KEYS IN THE BOX. WHENEVER ANY KEYS, CODES OR EMERGENCY CONTACT NUMBERS ARE CHANGED, THE FIRE DEPARTMENT SHALL BE NOTIFIED IMMEDIATELY SO A FIRE DEPARTMENT REPRESENTATIVE CAN UNLOCK THE BOX AND REPLACE THE CHANGED ITEMS.

BUILDING MATERIALS
NFPA 241 (STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS) AS ADAPTED IN THE FLORIDA ADMINISTRATIVE CODE (RULES OF THE STATE FIRE MARSHALL) AND THE FLORIDA FIRE PREVENTION CODE, AND AUTHORIZED BY FLORIDA STATE STATUTES, CHAPTER 633, REQUIRES THAT A WATER SUPPLY FOR FIRE PROTECTION SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ACCUMULATES ON THE SITE AND THAT THERE SHALL BE NO DELAY IN THE INSTALLATION OF FIRE PROTECTION EQUIPMENT. THIS SECTION ALSO STATES, "WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO CONSTRUCTION WORK.

MINIMUM FLAGPOLE SPECIFICATIONS
PART 1 GENERAL
1.1 REFERENCES
- A. ALUMINUM ASSOCIATION (AA): ALUMINUM FINISHES.
- B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
  1. ASTM B 241 – STANDARD SPECIFICATION FOR ALUMINUM AND ALUMINUM-ALLOY SEAMLESS PIPE AND SEAMLESS EXTRUDED TUBE.
  2. ASTM B 597 – STANDARD PRACTICE FOR HEAT TREATMENT OF ALUMINUM ALLOYS.
- C. NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM): NAAMM FP 1001 – GUIDE SPECIFICATIONS FOR DESIGN OF METAL FLAGPOLES.

1.2 SUBMITTALS
- A. MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:
  1. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.
  2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.
  3. INSTALLATION INSTRUCTIONS.

1.3 DELIVERY, STORAGE, AND HANDLING
- A. SPIRAL WRAP FLAGPOLES WITH HEAVY PAPER AND ENCLOSE IN A HARD FIBER TUBE OR OTHER PROTECTIVE CONTAINER.
- B. STORE PRODUCTS IN MANUFACTURER'S UNOPENED PACKAGING UNTIL READY FOR INSTALLATION.
- C. KEEP FLAGPOLE AND ACCESSORIES COVERED AND DRY TO PREVENT SOILING OR DAMAGE.
- D. HANDLE WITH PROTECTIVE GLOVES TO PREVENT UNWANTED DISTORTION.

1.4 PROJECT CONDITIONS
- A. STRUCTURAL PERFORMANCE: PROVIDE FLAGPOLE ASSEMBLIES, INCLUDING ANCHORAGES AND SUPPORTS, CAPABLE OF WITHSTANDING THE EFFECTS OF WIND LOADS, DETERMINED ACCORDING TO NAAMM FP 1001 FOR SPECIFIED GROUND SPEED. MUST MEET MINIMUM WIND LOAD REQUIREMENTS FOR THE SITE IN WHICH THE UNITS ARE TO BE INSTALLED.

1.5 WARRANTY
- A. THE CONTRACTOR SHALL WARRANTY ALL MATERIALS AND LABOR FOR ONE YEAR.

PART 2 PRODUCTS
2.1 FLAGPOLES
- A. DESIGN:
  1. EXTERNAL HALYARD: MANUALLY OPERATED HALYARD. STAINLESS STEEL BALL-BEARING, NON-FOULING, REVOLVING TRUCK ASSEMBLY. FINISH EXPOSED METAL SURFACES TO MATCH FLAGPOLE.
     - EXPOSED HEIGHT: 2 SEPARATE POLES- 1st POLE=30'; 2nd POLE=27'
     - MINIMUM OVERALL LENGTH: 33' AND 30'
     - DIAMETER: 6" BASE AND 3.5" TOP
     - MINIMUM WALL THICKNESS: .188"
     - WIND SPEED: MEET CURRENT CODE REQUIREMENTS
     - MOUNTING DEVICE: GROUND SLEEVE
     - BALL: 6"-14GA. ALUMINUM SPUN BALL ANODIZED GOLD
- B. FINISH:
  1. DIRECTIONAL SANDED SATIN FINISH: FINE, DIRECTIONAL, MEDIUM SATIN POLISH; BUFF COMPLYING WITH AA-M20; AND SEAL ALUMINUM SURFACES WITH CLEAR, HARD-COAT WAX

PART 3 EXECUTION
3.1 EXAMINATION
- A. DO NOT BEGIN INSTALLATION UNTIL FINAL GRADES AND ELEVATIONS HAVE BEEN ESTABLISHED.
- B. IF OTHERS DETERMINE FINAL BASE ELEVATION, CONFIRM WITH ENGINEER BEFORE PROCEEDING.

3.2 INSTALLATION
1. INSTALL FLAGPOLES WHERE SHOWN ON DRAWINGS AND IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. FLAGPOLES SHALL BE PLUMB.

LAKE COUNTY
FLORIDA

DATE	REVISION
	1
	2
	3
	4
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	6
	7
	8

ASTATULA LAKE COUNTY FIRE STATION

SECTION 32, TOWNSHIP 20 SOUTH, RANGE 26 EAST

GENERAL NOTES

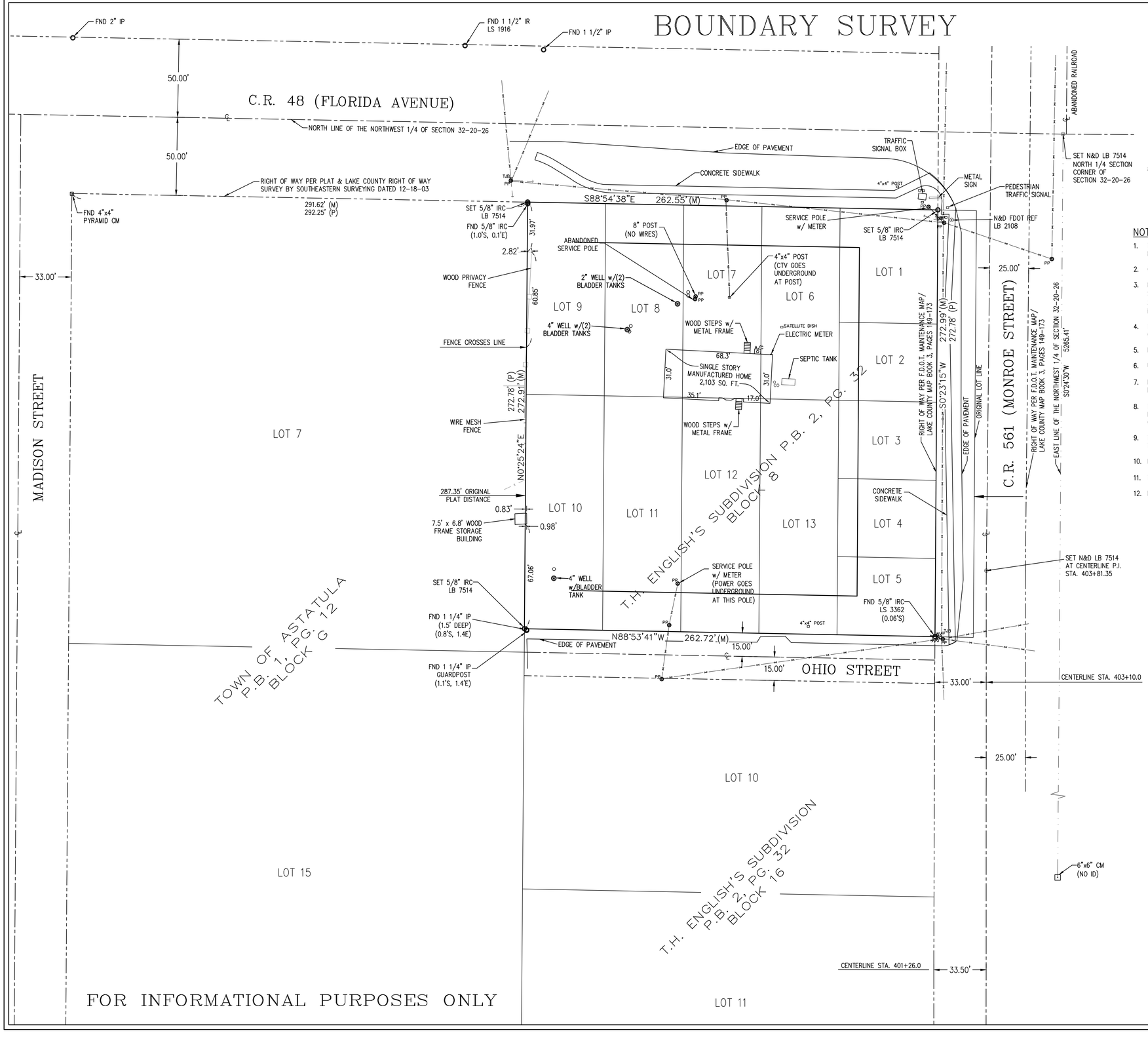
BOOTH ERN STRAUGHAN HIOTT, INC
ENGINEERS • SURVEYORS • LAND PLANNERS
350 North Sinclair Ave.
Tavares, Florida 32778
www.besandh.com
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 27029

DATE:	JUNE 2012
DESIGNED BY:	CCH
DRAWN BY:	CCH
CHECKED BY.:	CCH
JOB NO.:	071082.0025
FILE NAME:	GENERAL NOTES

Sheet 6

CHARLES C. HIOTT, P.E.
Registered Eng 54813

BOUNDARY SURVEY



FOR INFORMATIONAL PURPOSES ONLY

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

LEGAL DESCRIPTION

LOTS 1 TO 9, INCLUSIVE, IN BLOCK 8 OF T. H. ENGLISH'S SUBDIVISION IN THE CITY OF ASTATULA, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 2, PAGE 32, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

AND

LOTS 10, 11, 12 AND 13 IN BLOCK 8 OF T. H. ENGLISH'S SUBDIVISION IN THE TOWN OF ASTATULA, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 2, PAGE 32, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

CONTAINING 1.646 ACRES MORE OR LESS

NOTES

1. THE SURVEY MAP (AND/OR) REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. CERTIFICATION IS LIMITED TO PARTIES NAMED HEREON.
3. BEARINGS SHOWN HEREON ARE FLORIDA STATE PLANE COORDINATE EAST ZONE BASED ON LENGEMANN L-NET GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) NETWORK, THAT IS CERTIFIED BY WANTMAN GROUP, INCORPORATED, AND IS BASED ON NORTH AMERICAN DATUM OF 1983, 2007 ADJUSTMENT (SPCS'83-2007) THIS SURVEY WAS CHECKED TO NGS STATIONS "LK 53" AND "LK 54" AND REFERENCED TO THE EAST LINE OF THE NORTHWEST 1/4 OF SECTION 32-20-26 AS BEING S00°24'30"W.
4. THE LEGAL DESCRIPTION WAS SUPPLIED BY THE CLIENT AND COPIES OF THE ORIGINAL DEEDS WERE OBTAINED FROM THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.
5. LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR EASEMENTS, RIGHTS OF WAY, OWNERSHIP OR OTHER MATTERS OF RECORD BY THIS FIRM.
6. UNDERGROUND IMPROVEMENTS SUCH AS UTILITIES, FOUNDATIONS, ETC. WERE NOT LOCATED.
7. LANDS SHOWN HEREON LIE IN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 500 YEAR FLOOD PLAIN) ACCORDING TO FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 12069 C 0480 D EFFECTIVE DATE: JULY 3, 2002.
8. THE EXPECTED USE OF LAND, AS CLASSIFIED IN THE MINIMUM TECHNICAL STANDARDS (5J-17.051 FAC), IS "RESIDENTIAL". THE MINIMUM RELATIVE DISTANCE ACCURACY FOR THIS TYPE OF BOUNDARY SURVEY IS 1 FOOT IN 7,500 FEET. THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS FOUND TO EXCEED THIS REQUIREMENT.
9. THIS SURVEY MEETS ALL APPLICABLE REQUIREMENTS OF THE FLORIDA MINIMUM TECHNICAL STANDARDS AS CONTAINED IN CHAPTER 5J-17.052 OF THE FLORIDA ADMINISTRATIVE CODES.
10. DATE OF FIELD WORK IS REFLECTED IN TITLE BLOCK, NOT THE DATE OF SIGNATURE.
11. THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1/30 OR SMALLER.
12. HORIZONTAL DATUM SHOWN HEREON IS IN U.S. FEET.

SCHEDULE BII

1. UNKNOWN TO THIS SURVEYOR
2. UNKNOWN TO THIS SURVEYOR
3. AS SHOWN HEREON
4. NOT APPLICABLE
5. NOT APPLICABLE
6. NOT APPLICABLE
7. NOT APPLICABLE
8. NOT APPLICABLE
9. ORDINANCE NUMBER 1970 AS RECORDED IN OFFICIAL RECORDS BOOK 439, PAGE 190 AND 191 DOES NOT APPLY AS IT DESCRIBES PROPERTY TO THE SOUTH.
   ORDINANCE NUMBER 1996-H AS RECORDED IN OFFICIAL RECORDS BOOK 1498, PAGE 1887 AND 1888 DOES NOT APPLY AS RECORDED BECAUSE LEGAL DESCRIPTION DESCRIBES LANDS IN THE TOWN OF ASTATULA (P.B. 1, PG. 12) AND NOT AS LANDS RECORDED IN T.H. ENGLISH'S SUBDIVISION (P.B. 2, PG. 32). BUT IT IS THIS SURVEYOR'S BELIEF THAT THE INTENT OF THIS DOCUMENT WAS TO ANNEX INTO THE TOWN OF ASTATULA THE SUBJECT PROPERTY.
10. DECLARATION OF UNITY OF TITLE AS RECORDED IN OFFICIAL RECORDS BOOK 2643, PAGE 2109 DOES AFFECT SUBJECT PROPERTY.
11. NOT APPLICABLE.
12. SUBJECT PROPERTY IS SUBJECT TO MATTERS AS SHOWN ON THE PLAT OF T.H. ENGLISH'S SUBDIVISION (P.B. 2, PG. 32)

LEGEND

○CO	CLEAN OUT	(FDOT)	FLORIDA DEPARTMENT OF TRANSPORTATION
⋈WV	WATER VALVE	ID	IDENTIFICATION
⊗PP	POWER POLE	LB	LICENSED BUSINESS
	FIRE HYDRANT	RLS	REGISTERED LAND SURVEYOR
	STOP SIGN	PSM	PROFESSIONAL SURVEYOR AND MAPPER
○	SET 5/8" IRON ROD AND CAP (LB 7514) OR AS NOTED	IR	IRON ROD
◉	SET NAIL AND DISC (LB 7514) OR AS NOTED	PP	POWER POLE
⊡	FOUND CONCRETE MONUMENT (AS NOTED)	A/C	AIR CONDITIONER PAD
TJB	TELEPHONE JUNCTION BOX	IRC	IRON ROD & CAP
	GUY WIRE	WM	WATER METER
—X—	FENCE LINE	EJB	ELECTRIC JUNCTION BOX
—OHE—	OVERHEAD ELECTRIC LINE	N&D	NAIL & DISK
—CTV—	CABLE TV LINE	FFE	FINISHED FLOOR ELEVATION
(M)	MEASURED PER BLOCK BREAKDOWN	PC	POINT OF CURVATURE
(D)	DESCRIBED PER LEGAL DESCRIPTION	PT	POINT OF TANGENCY
(P)	PLAT	ORB	OFFICIAL RECORDS BOOK
(C)	CALCULATED	PG	PAGE
℄	CENTERLINE		

SHEET 7 OF 7

CLIENT	LAKE COUNTY
JOB NO.	071082.0025
ACAD FILE	071082.0025 BOUNDARY AT SW CORNER
DATE	02-07-12 CHECKED BY: JMS
DRAWN BY:	RLG FLD. BOOK:32-20-26
REVISIONS	DATE

BOUNDARY SURVEY

IN SECTION 32, TOWNSHIP 20 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA.

ASTATULA FIRE STATION
AT CR 561 AND CR 48

BESH
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